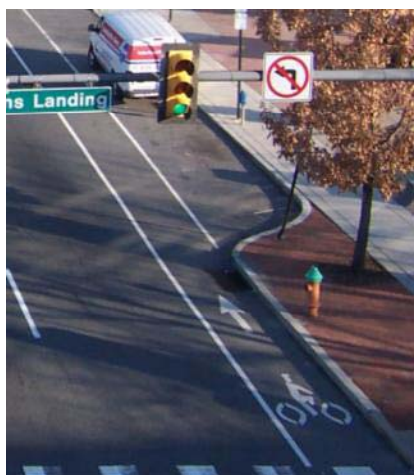


# MTC One Bay Area Grant: Complete Streets Policy Development Workshop



City/County Association of Governments of San Mateo County  
Tuesday, October 16 1:00 – 4:00 p.m.



# Agenda

## **1 p.m. – 2:15 p.m.**

- Introduction
- Policy Background
- MTC Complete Streets Sample Resolution

## **Break (15 minutes)**

## **2:30 p.m. – 4:00 p.m.**

- Integrating Complete Streets Policy Language into Plans
- Steps to Implementing Complete Streets Policies
- Next Steps

# Introduction



Brett Hondorp, Alta Planning + Design

# What are Complete Streets?

Complete Streets are safe, comfortable, and convenient for travel for everyone, regardless of age or ability – motorists, pedestrians, bicyclists, and public transportation riders.



# Definition of Complete Streets

“Everyone” includes walkers, bicyclists, motorists and transit users of all ages and abilities



# Definition of Complete Streets

“Safe, convenient and inviting” is context-dependent



# Definition of Complete Streets

Provide connections to essential destinations:

Schools



Parks

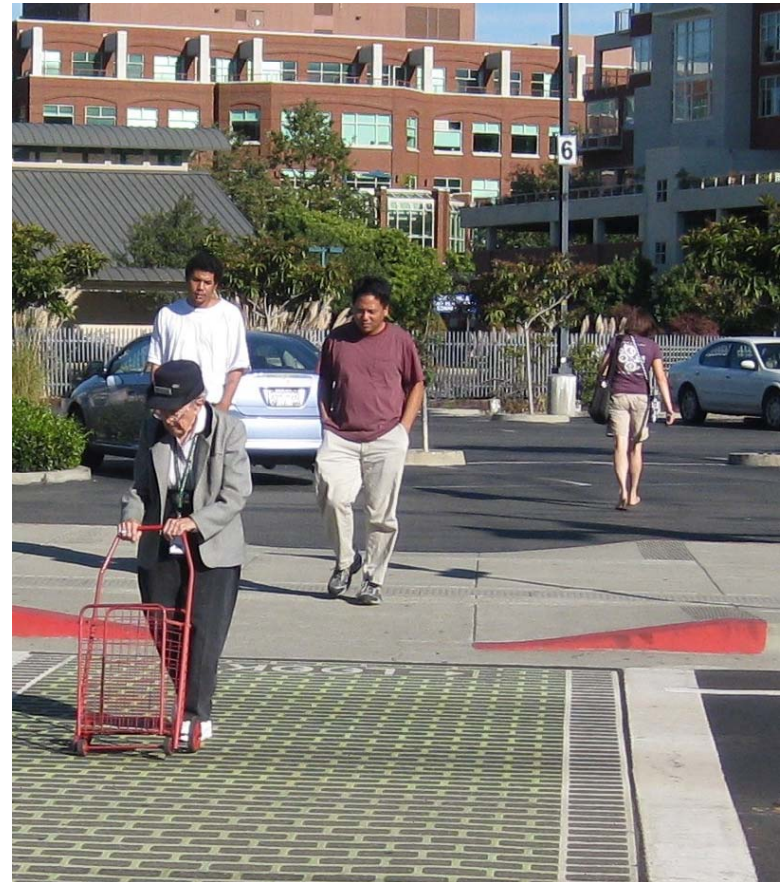


Shopping



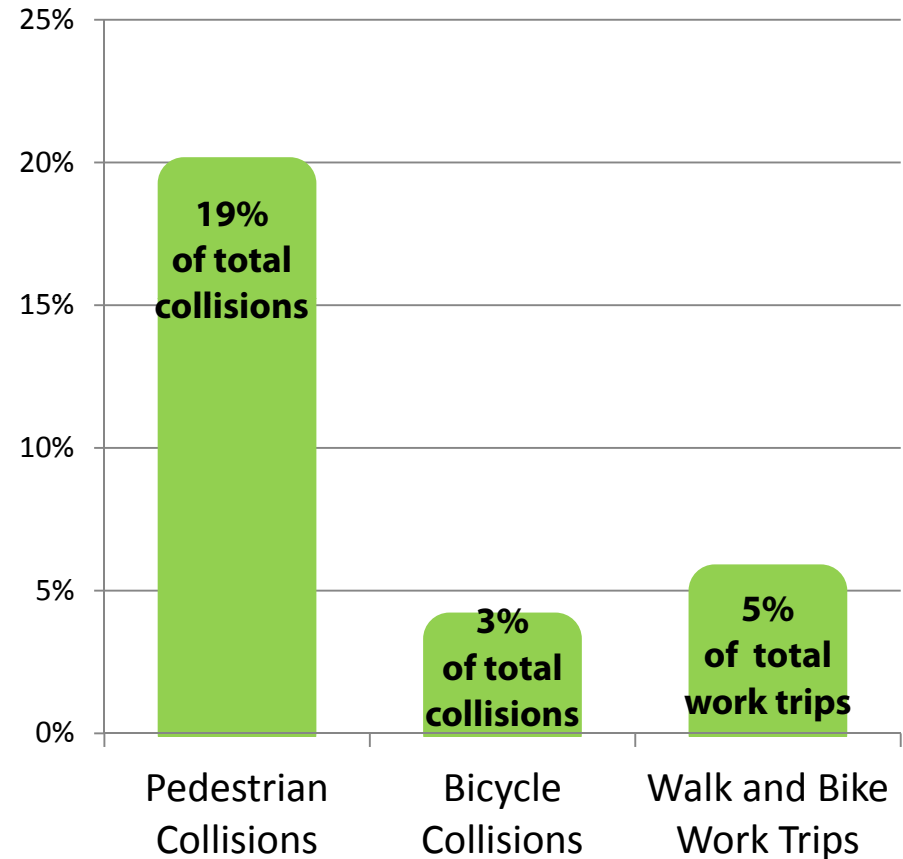
# Benefits of Complete Streets

- Safety
- Transportation and mobility
- Air and water quality
- Public health
- Economics and real estate
- Livability



# Improved Safety

- Designing streets for all users reduces crashes
- In Santa Monica, a street reconfiguration with parallel parking, a center turn lane, and bike lanes reduced crashes by 65%<sup>1</sup>
- Nationwide, more than 52% of pedestrian fatalities occurred on arterials<sup>1</sup>



*California Highway Patrol 1998 to 2007 Bay Area Collisions  
American Community Survey Work Trips (2009)*

# Increased Transit Ridership

- Walkable neighborhoods of King County, WA have higher public transportation shares<sup>2</sup>
- A priority signal system in Los Angeles decreased travel time by 25% and increased ridership by more than 30%<sup>3</sup>



# Increased Walking and Bicycling

- Residents are 65% more likely to walk in a neighborhood with sidewalks<sup>4</sup>
- Cities with more bike lanes per square mile have higher levels of bicycle commuting<sup>5</sup>
- San Francisco's improvements on Valencia Street resulted in 1.4 times more cyclists and 36% fewer pedestrian collisions<sup>1</sup>



# Increased Mobility for People with Disabilities and Older Adults

- Nationwide in 2008, older pedestrians represented 18% of the fatalities but were only 13% of the population<sup>6</sup>
- Non-driving seniors make 65% fewer trips to visit family, friends or go to church<sup>7</sup>
- Blind pedestrians wait three times longer to cross the street than sighted pedestrians<sup>8</sup>



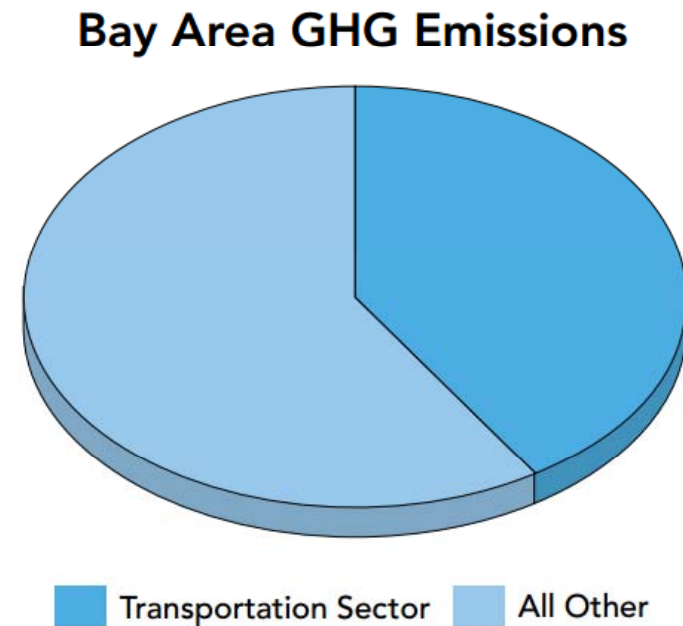
# Increased Roadway Capacity



Photos: Tampa Tribune  
From National Complete Streets Coalition

# Reduced Air Pollution from Transportation

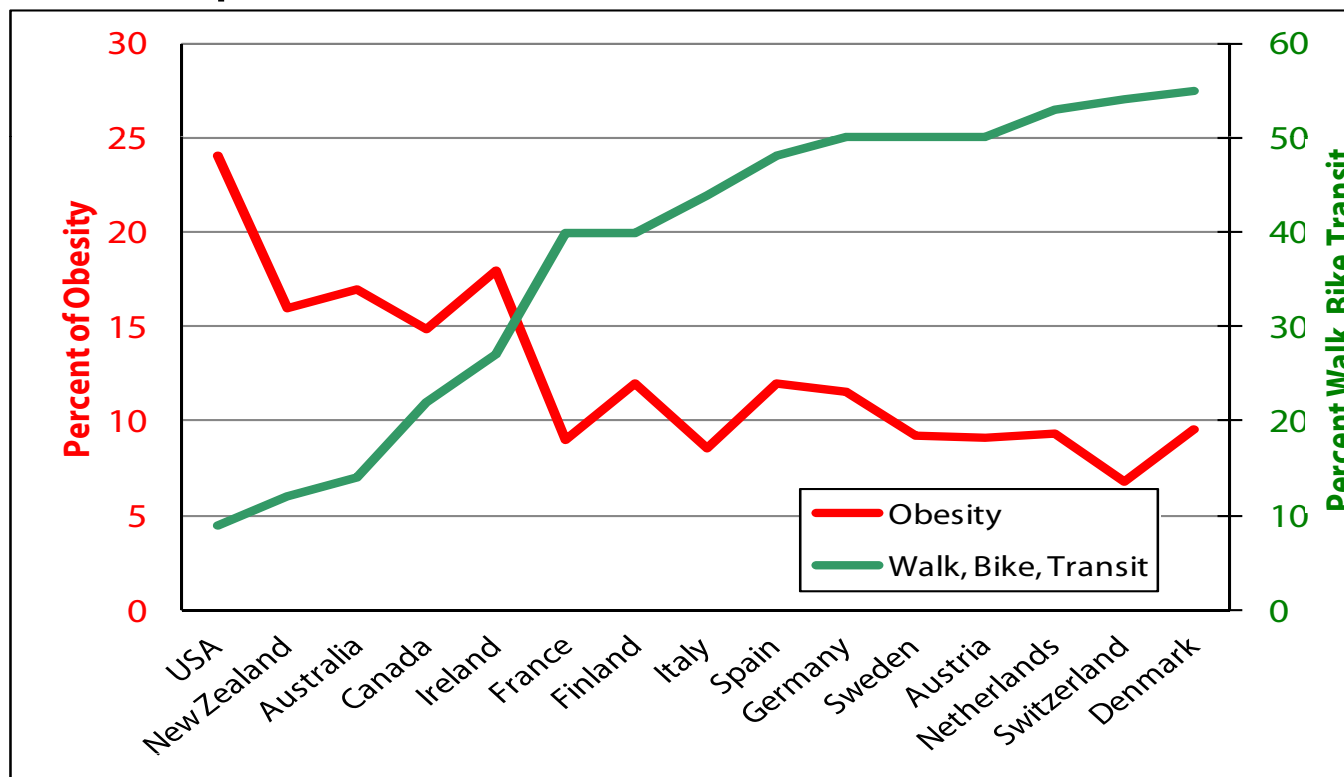
- 40% of all trips are < 2 miles
- 75% of air pollution emissions in the Bay Area are from mobile sources (particularly cars & light duty trucks)<sup>9</sup>



SOURCE: US EPA

# Reduced Obesity

Obesity is lower in places where people use bicycles, public transportation, and their feet<sup>10</sup>



Source: Pucher, "Walking and Cycling: Path to Improved Public Health," Fit City Conference, NYC, June 2009

# Healthier Children

- Nationally, fewer than 1/3 of children participate in 20 minutes of physical activity<sup>11</sup>
- Students who are more physically fit score higher on academic achievement tests<sup>12</sup>



# Enhanced Economic Competitiveness

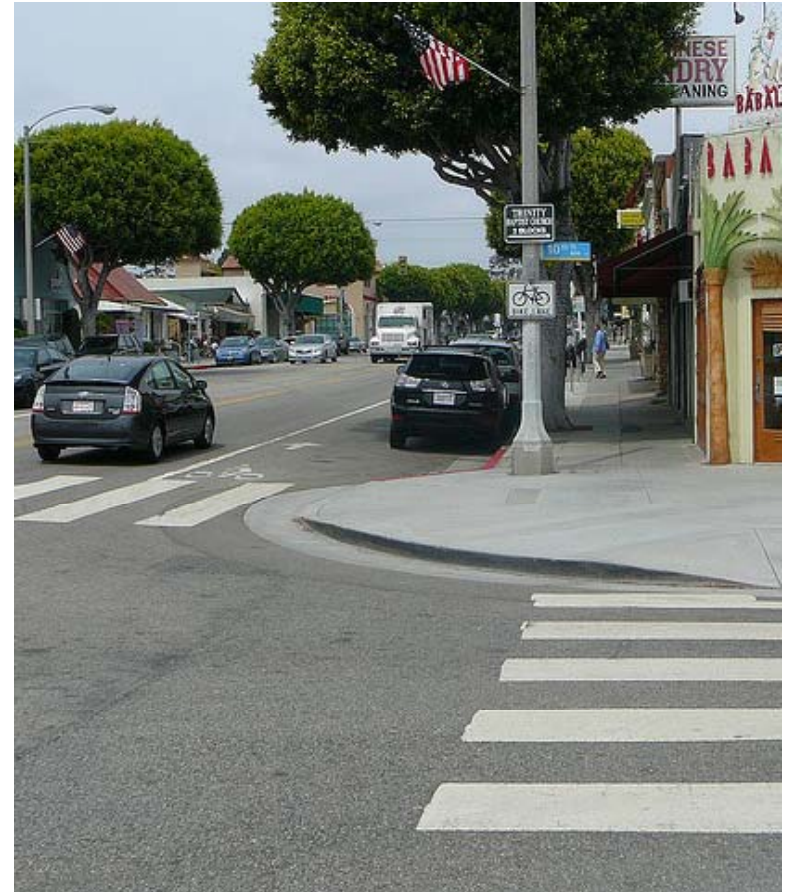
- In San Francisco, a 1-point increase in the 100-point Walk Score scale was found to result in a \$2,985 increase in home value <sup>13</sup>
- In Lancaster, CA, a \$10M investment in new lighting, landscaping, and trees spurred \$125M in investment in the downtown area <sup>1</sup>



# Increased Livability

## Top 10 Attributes of Desirable Neighborhoods<sup>14</sup>

1. **Safe** to **walk** around at night
2. Safe and convenient to **walk** and **bike** for errands
3. Clean neighborhood
4. **Short commute** to work
5. Neighborhood where there are places to spend time
6. Need only one or **fewer parking** spots
7. Plenty of indoor space
8. Parks nearby
9. Outdoor recreation opportunities nearby
10. **Quiet** street



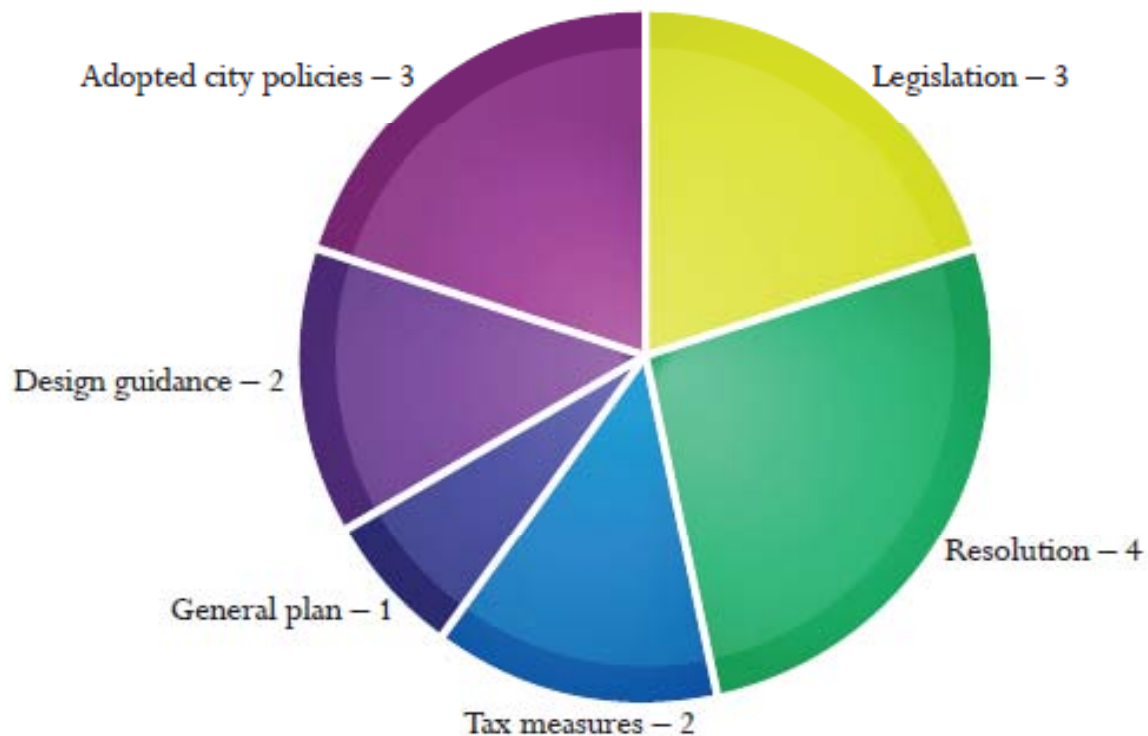
# Why Have a Policy?

- To *update practices*, integrating the needs of all street users into *all phases* of a project
- To ensure every project becomes an *opportunity to* help create a complete street
- To bring an overarching *vision and consistency to* disparate departmental approaches
- To improve departmental *efficiency and streamlining*
- To be considered for One Bay Area Grant funds

# Types of Policies

## Complete Streets Policies in California (as of February 2012)

Complete Streets Policies in California



Source: National Complete Streets Coalition and Local Government Commission, "It's a Safe Decision: Complete Streets in California"

# Types of Policies

- **Ordinances** change city code to legally require the needs of all users be addressed in transportation projects
- **Resolutions** are non-binding, official statements of support for the CS approach
- **General Plans** may include CS policies in goals and objectives and provide implementation guidance
- **Design Guidelines** promotes street design that complies with CS goals

# Case Study: Baldwin Park

- Over 39% of children in Baldwin Park are overweight
- Lack of safe access due to major roads



## Case Study: Baldwin Park

- Worked with LA County Dept of Public Health and other public health agencies
- Received Renew Environments for Nutrition, Exercise, and Wellness grant for Complete Streets policy workshop
- Adopted comprehensive Complete Streets policy

# Case Study: Baldwin Park

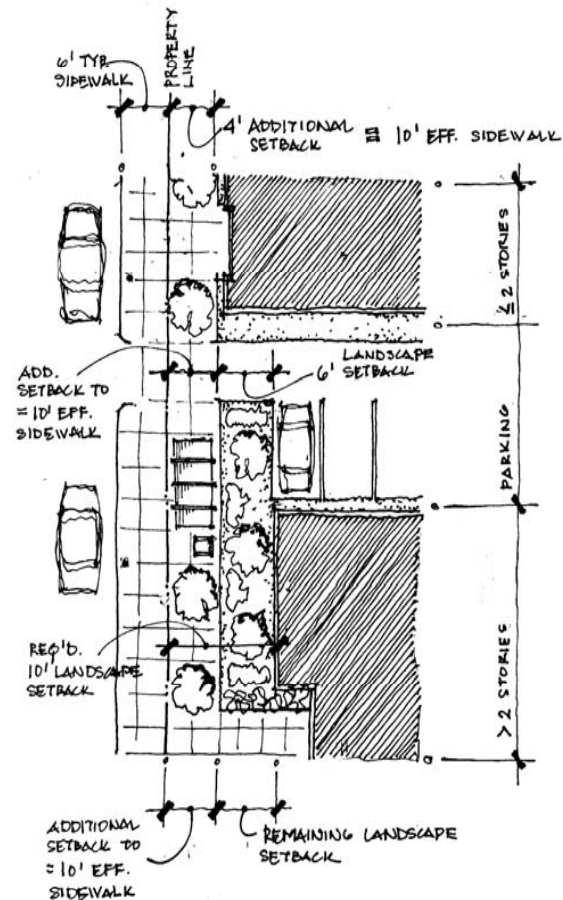
- CS policy results:
  - City obtained \$1.2M in SR2S and other grant funding
  - Funded bike and ped improvements on major streets
  - Adopted Complete Streets Design Manual



Source: Dan Burden  
from National Complete Streets Coalition

# Case Study: El Camino Real Grand Boulevard Initiative

- Streetscape plan
- Landscaped median
- 10' effective sidewalk
- Theme intersections
- Design Guidelines: setbacks, signs, parking, etc.



# El Camino Real Grand Boulevard Initiative



**El Camino Avenue at California Avenue Transit Improvements**



*Source: Grand Boulevard Task Force*

Example: W Bayshore at Newell Rd

## Pedestrian Improvements - Before



Example: W Bayshore at Newell Rd

## Pedestrian Improvements - After

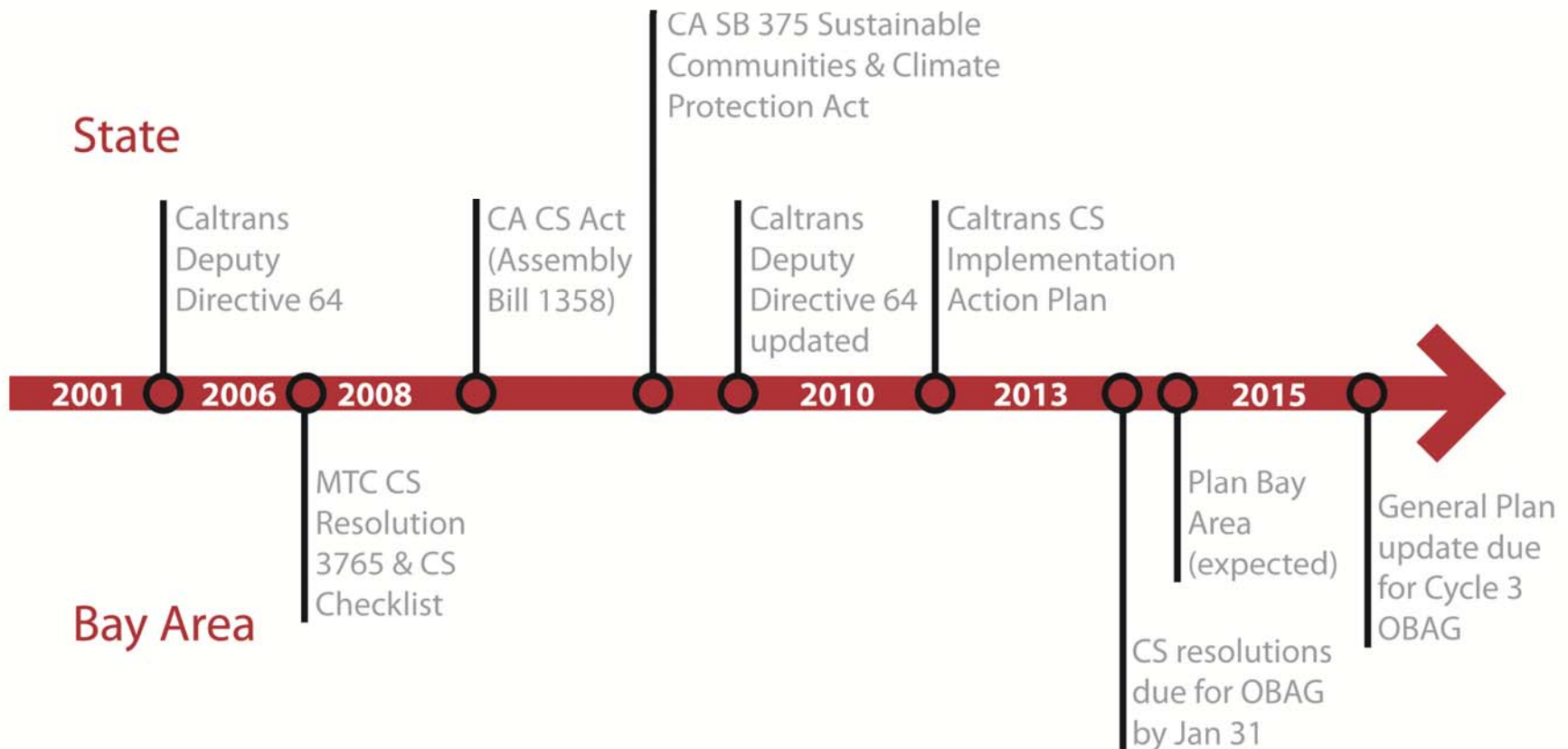


# Complete Streets Policy Background



Sean Co, Metropolitan Transportation Commission

# Complete Streets in California and the Bay Area



# 2008 California Complete Streets Act (AB 1358)

- Signed by Gov. Schwarzenegger and co-sponsored by AARP and California Bicycle Coalition
- Cities and counties must include complete streets policies in general plans during any 'substantive revision of the circulation element'
- Office of Planning and Research guidance :  
[opr.ca.gov/docs/Update\\_GP\\_Guidelines\\_Complete\\_Streets.pdf](http://opr.ca.gov/docs/Update_GP_Guidelines_Complete_Streets.pdf)



**Complete Streets Policies in the Bay Area**

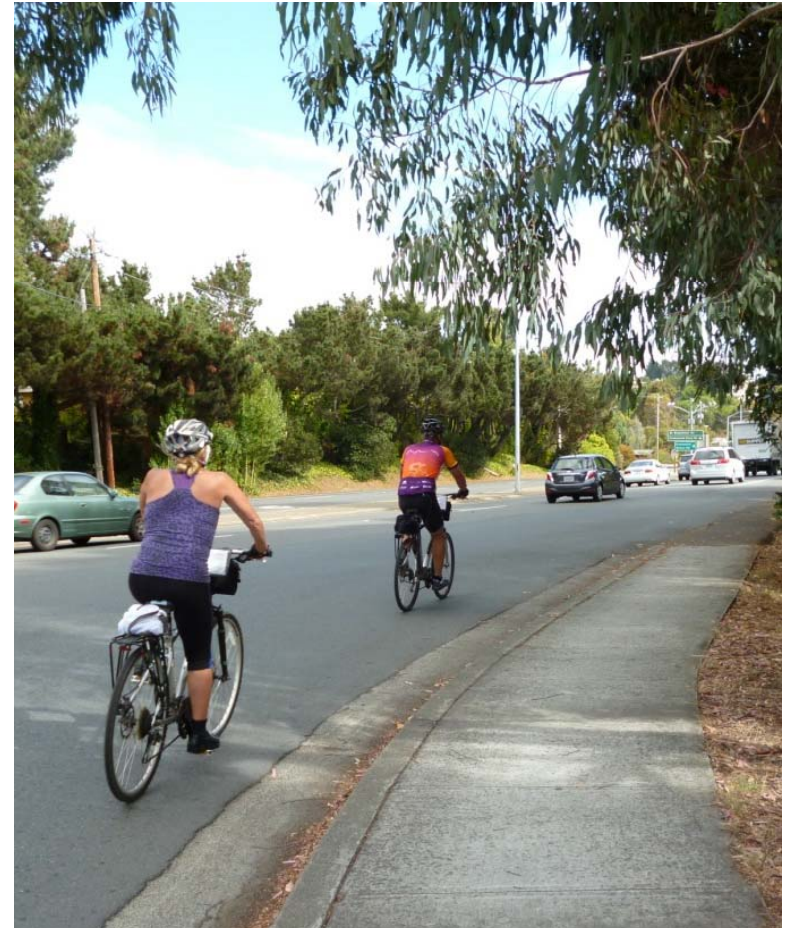
# Caltrans Deputy Directive 64-R1

- Adopted 2008
- Provides for the needs of travelers of **all ages and abilities** in all planning, programming, design, construction, operations, and maintenance activities and products on the State highway system
- MTC and local policies consistent



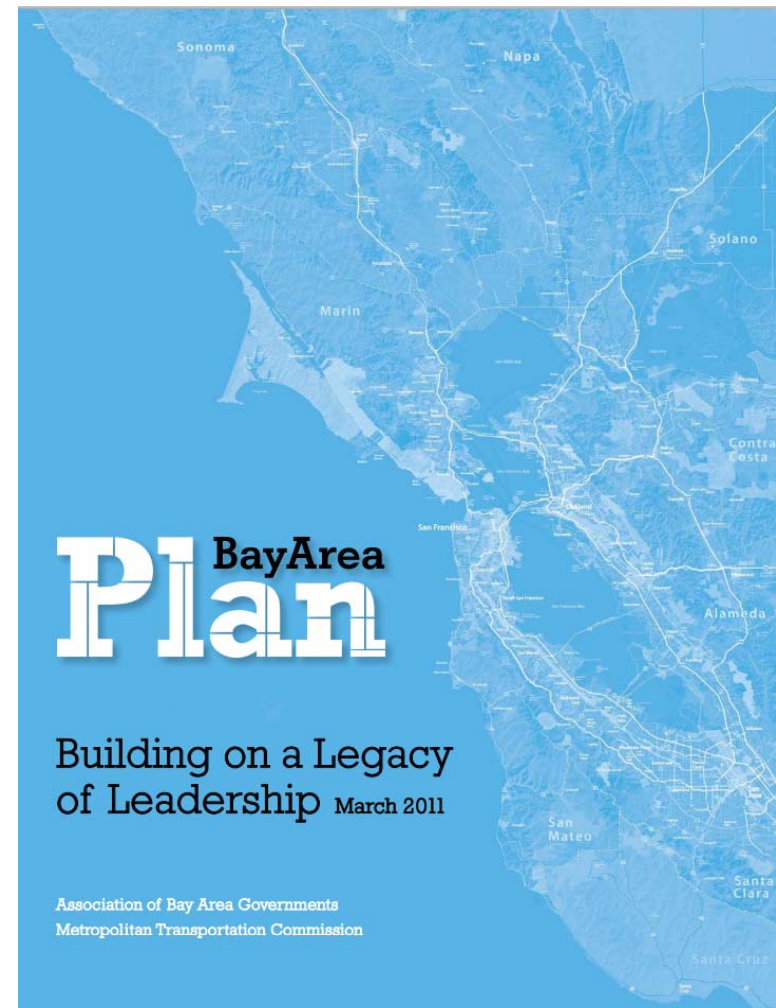
# MTC Complete Streets Policy (Routine Accommodations)

- Developed in 2006 from Transportation 2030
- Review of federal, state and local policies to determine how bicycles and pedestrians are accommodated
- Bicycle and pedestrian accommodations are included in 57% of projects
- Study led to checklist for project sponsors



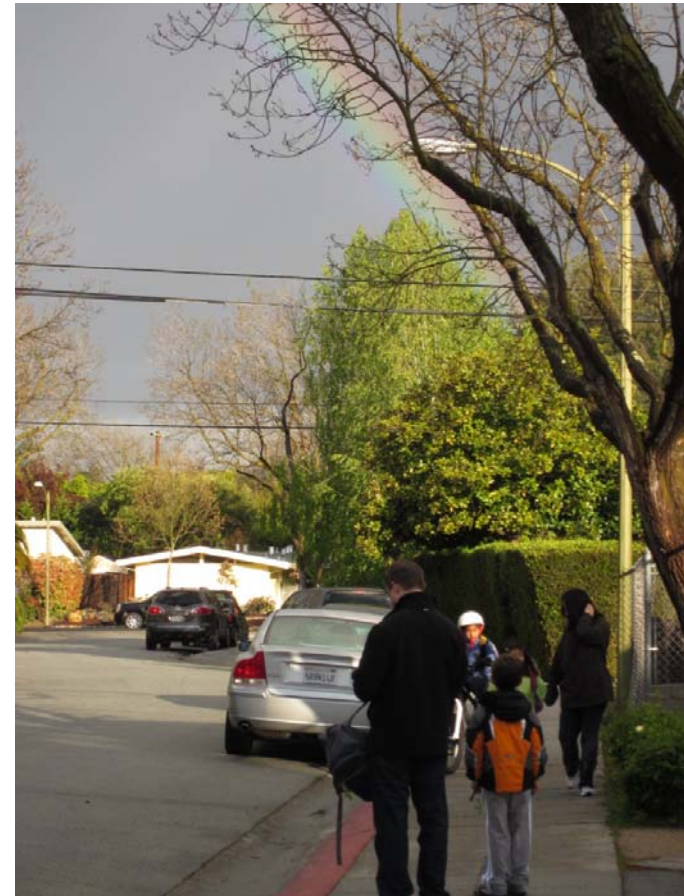
# SB 375-Sustainable Communities Strategy – Plan Bay Area

- Goal: 15% CO<sub>2</sub> reduction per capita by 2035
- Region must show how it can house all the population in the next 30 years
- Preservation of open space and agricultural land
- Links land use and housing to transportation
- Show how development pattern and transportation network can reduce greenhouse gases



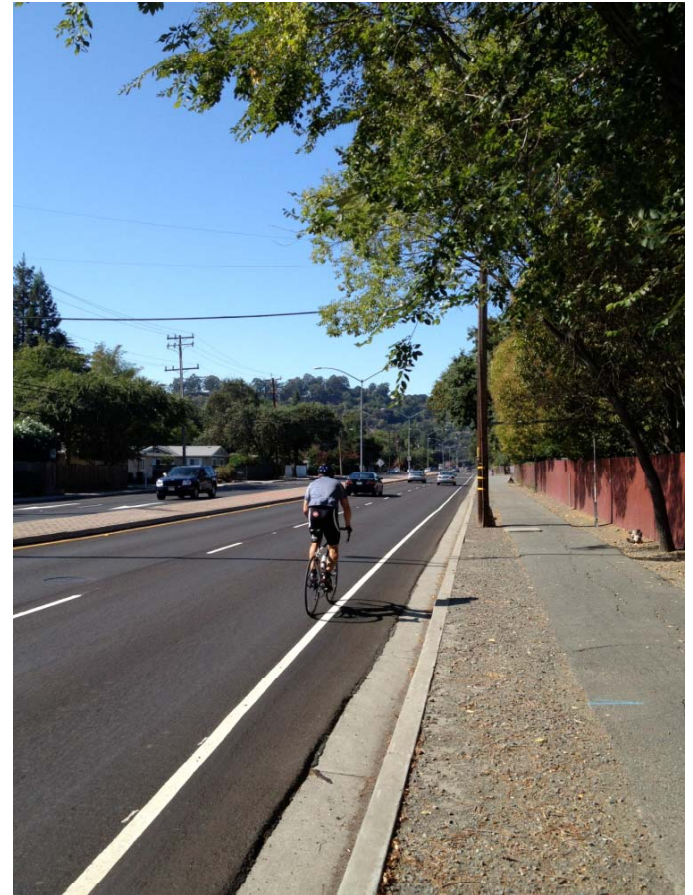
# One Bay Area Grant (OBAG)

- New funding approach
- Integrates federal transportation program with California's climate law and the Sustainable Communities Strategy
- Replaced funding programs
  - Transportation for Livable Communities
  - Regional Bicycle Network Program
  - Local Streets and Roads
- Increased flexibility for funding road projects

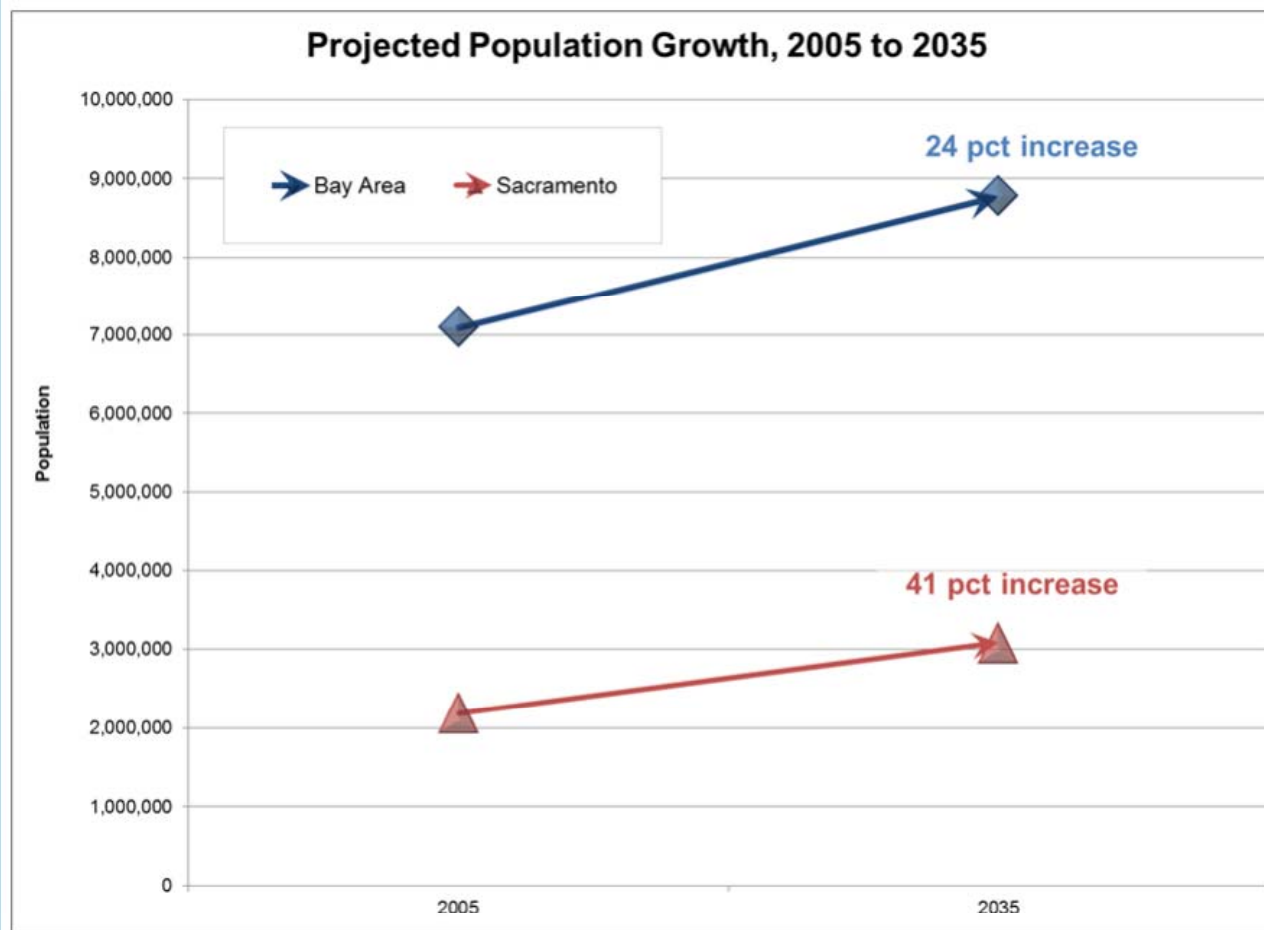


# OBAG Goals

- House all forecasted regional population demand by income levels to the year 2040
- Demonstrate achievement of greenhouse gas (GHG) emission reduction targets
- Bay Area targets (set by CA Air Resources Board):
  - 2020: 7% reduction
  - 2035: 15% reduction



# Forecasted Population Growth = 1.7M by 2035

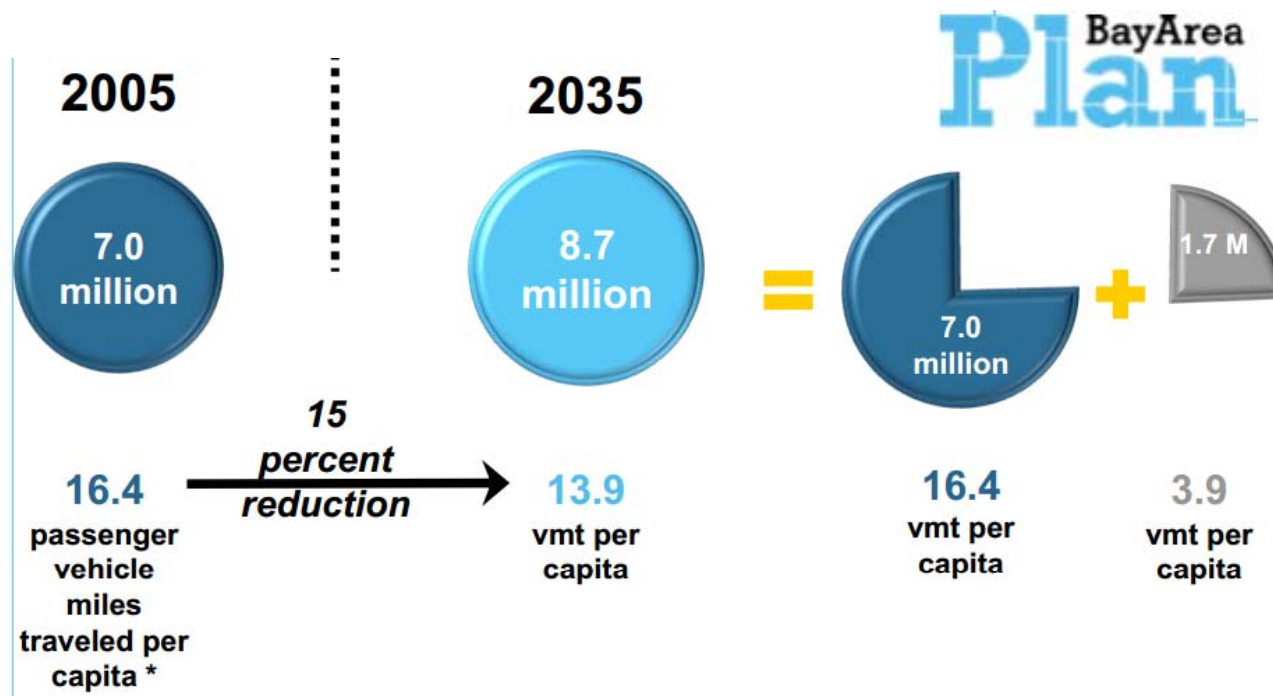


# To achieve GHG reduction goals...

The average “new” Bay Area resident must travel by car...

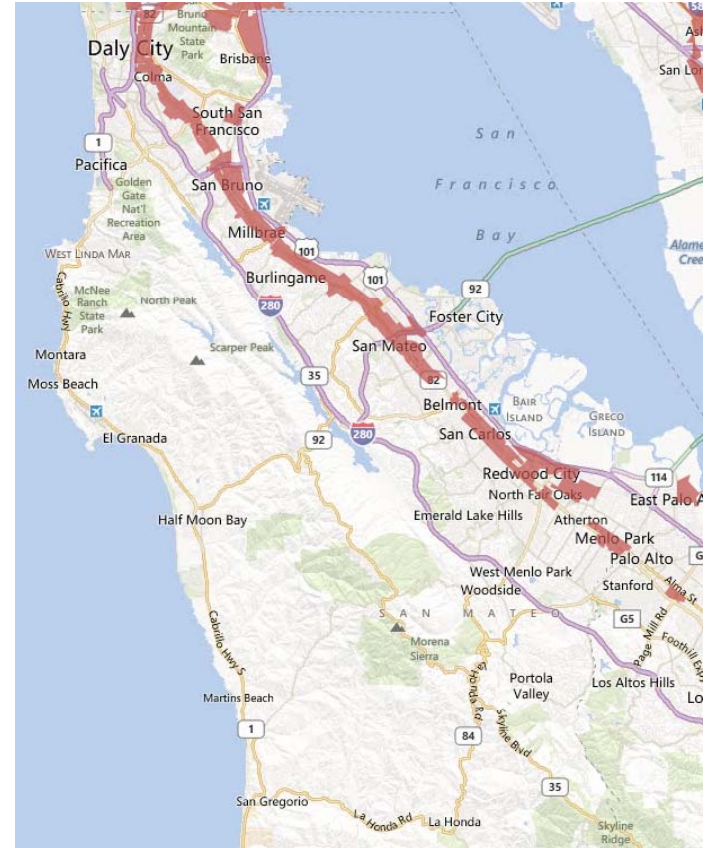
- 60% less than the average “new” Sacramento resident; or,
- 75% less than current Bay Area residents

(assuming current residents’ travel patterns don’t change)



# OBAG Priorities

- Priority Development Areas (PDAs)  
Funding distribution to PDAs allocated by population:
  - Areas >1M pop = 70% OBAG for PDAs
  - Areas <1M pop = 50% OBAG for PDAs
- Transportation for Livable Communities (TLC) projects
  - Streetscape improvements
  - Access to transit
  - Stormwater management projects
- Bicycle and pedestrian projects



**Priority Development Areas in San Mateo County**

Source: <http://bit.ly/PYGj4b>

# OBAG Complete Streets Requirements

Requirement	Deadline	Funding
<b>Complete Streets policy, resolution, or General Plan update</b>	<b>January 31, 2013</b>	<b>FY 2013-14 through 2015-16</b>
<b>General Plan update complies with 2008 Complete Streets Act</b>	<b>TBD</b>	<b>OBAG Cycle following 2015-2016</b>

# OBAG Complete Streets Resolution

- To be eligible for OBAG grant funding in FY 2013-14 through 2015-16, cities and counties must:
  - Adopt a resolution by January 31, 2013
  - Address nine required elements
- Context sensitivity
- Urban vs. rural



# OBAG General Plan Update


Instead of a resolution, a city or county can be eligible for OBAG by:

- Updating the General Plan to comply with CA Complete Streets Act (2008), or
- Determining that the General Plan already complies with Office of Planning and Research (OPR) guidance



# MTC Complete Streets Checklist

- Required for all projects funded by MTC, including OBAG
- Does the project consider all users in project planning and design?



## COMPLETE STREETS CHECKLIST

Project title:  
County:  
Jurisdiction/agency:  
Project location:  
Contact name:  
Contact phone:  
Contact e-mail:

### Preamble

Recent federal, state and regional policies call for the routine consideration of bicyclists and pedestrians in the planning, design and construction of all transportation projects. These policies—known as “Routine Accommodation” guidelines—are included in the federal surface transportation act (SAFETEA-LU), Caltrans Deputy Directive 64, and MTC Resolution 3765, which calls for the creation of this checklist.

In accordance with MTC Resolution 3765, agencies applying for regional transportation funds must complete this checklist to document how the needs of bicyclists and pedestrians were considered in the process of planning and/or designing the project for which funds are being requested. For projects that do not accommodate bicyclists and pedestrians, project sponsors must document why not. According to the resolution, the checklist is intended for use on projects at their earliest conception or design phase.

This guidance pertains to transportation projects that could in any way impact bicycle and/or pedestrian use, whether or not the proposed project is designed to accommodate either or both modes. Projects that do not affect the public right-of-way, such as bus-washers and emergency communications equipment, are exempt from completing the checklist.

### I. Existing Conditions

#### PROJECT AREA

a. What accommodations for bicycles and pedestrians are included on the current facility and on facilities that it intersects or crosses?

b. If there are no existing pedestrian or bicycle facilities, how far from the proposed project are the closest parallel bikeways and walkways?

c. Please describe any particular pedestrian or bicycle uses or needs along the project corridor which you have observed or of which you have been informed.

d. What existing challenges could the proposed project address for bicycle and pedestrian travel in the vicinity of the proposed project?

#### DEMAND

What trip generators (existing and future) are in the vicinity of the proposed project that might attract walking or bicycling customers, employees, students, visitors or others?


#### COLLISIONS

In the project design, have you considered collisions involving bicyclists and pedestrians along the route of the facility? If so, what resources have you consulted?

COMPLETE STREETS CHECKLIST

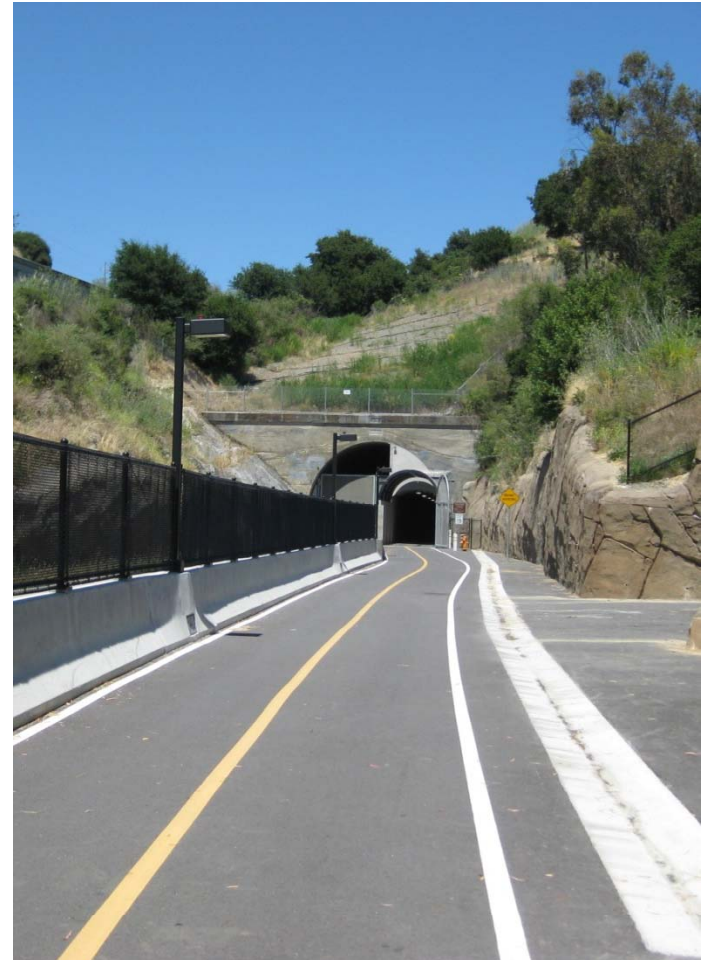
Page 1

# MTC Complete Streets Checklist

- Project sponsors
    - Complete checklist when using MTC funds
    - Required during call for projects
  - CMAs
    - Ensure checklists are completed
    - Make checklists available to Bicycle and Pedestrian Advisory Committees
    - Could use as prioritization criterion
- 
- New timeline  
enables more  
public involvement**

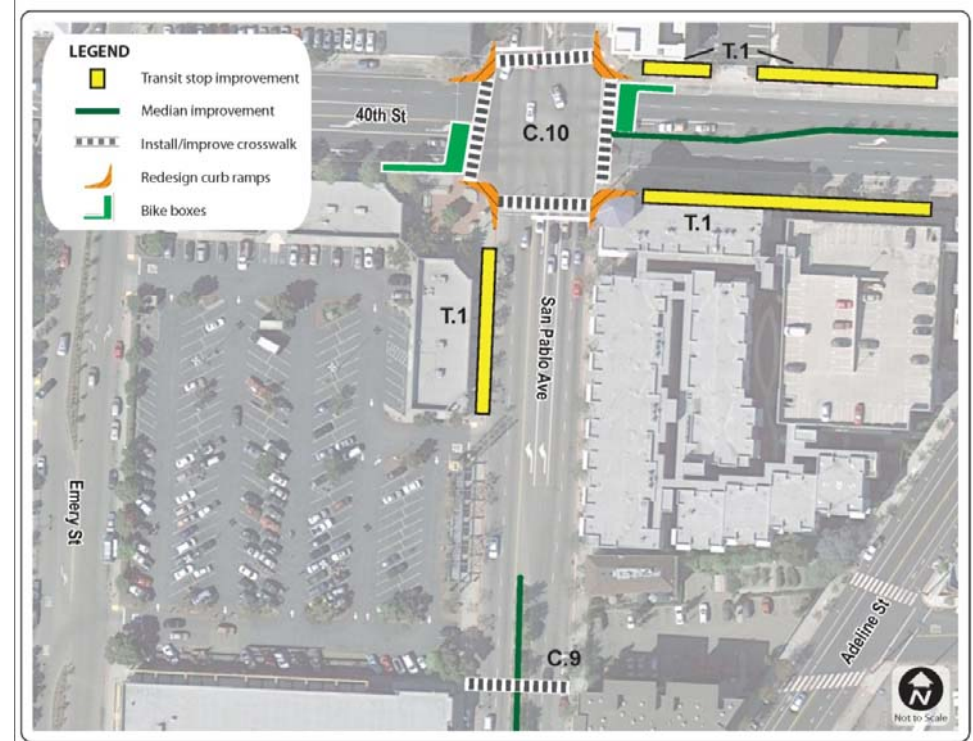
# MTC Checklist Description

- Ten questions with many open-ended responses
- 10 to 30 minutes to complete
- Applied to ARRA Local Streets and Roads System Preservation Projects
- 104 checklists completed representing every county



# Technical Assistance

- Sample Resolution available for agencies to use in developing their own policies
- Technical workshops early next year



Source: Emeryville Bicycle and Pedestrian Master Plan (2012)

# Pathways to Complete Streets: *MTC Complete Streets Sample Resolution*



Lisa Chen, ChangeLab Solutions

# ChangeLab Solutions

ChangeLab Solutions creates innovative law and policy solutions that transform neighborhoods, cities, and states. We do this because achieving the common good means everyone has safe places to live and be active, nourishing food, and more opportunities to ensure health. Our unique approach, backed by decades of solid research and proven results, helps the public and private sectors make communities more livable, especially for those who are at highest risk because they have the fewest resources.



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# Today's Roadmap

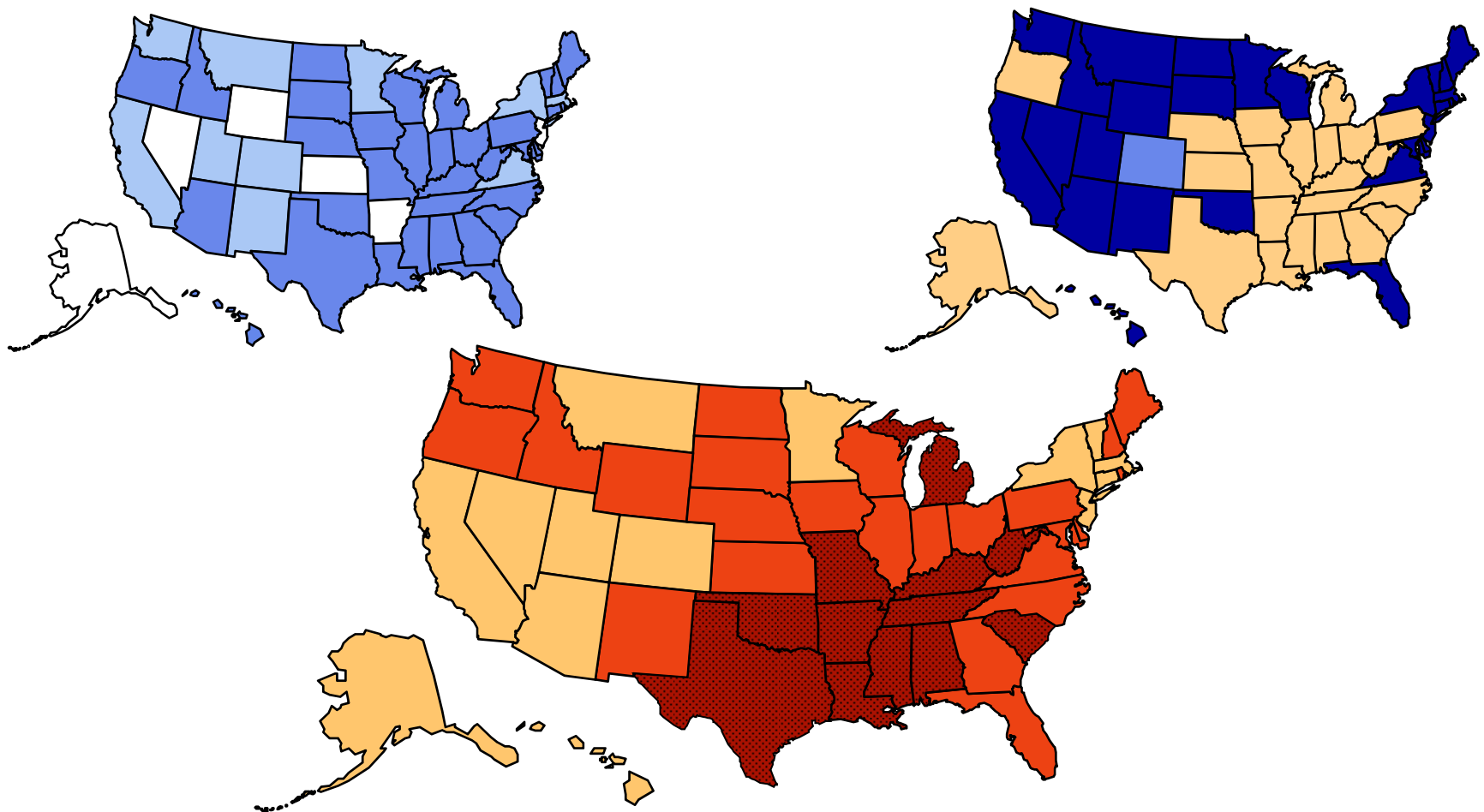
- What is a model complete streets policy?
- Local policy development: Adapting the MTC Complete Streets Sample Resolution
- Conclusion & Resources



# What is a Model Complete Streets Policy?



# US Adult Obesity Prevalence 1990, 2000, 2010



(\*BMI  $\geq 30$ , or ~ 30 lbs. overweight for 5' 4" person)

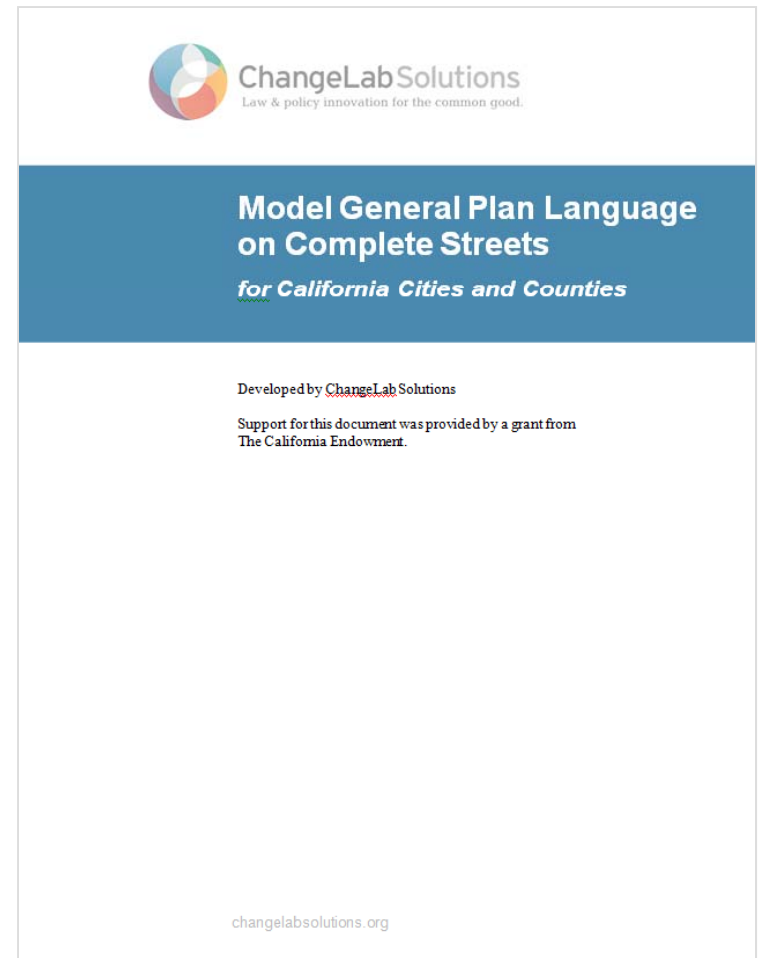
■ No Data ■ <10% ■ 10%–14% ■ 15%–19% ■ 20%–24% ■ 25%–29% ■  $\geq 30\%$  Source: CDC BFRSS



# Model Policy Language

- CA & National model policies:
  - Findings
  - Resolution
  - Ordinance
  - General plan language

Available at  
[changelabsolutions.org](http://changelabsolutions.org)



# What is a Model Policy?

- A legal tool that provides a strong general starting place for a community's policy needs
- A living document
- A set of questions



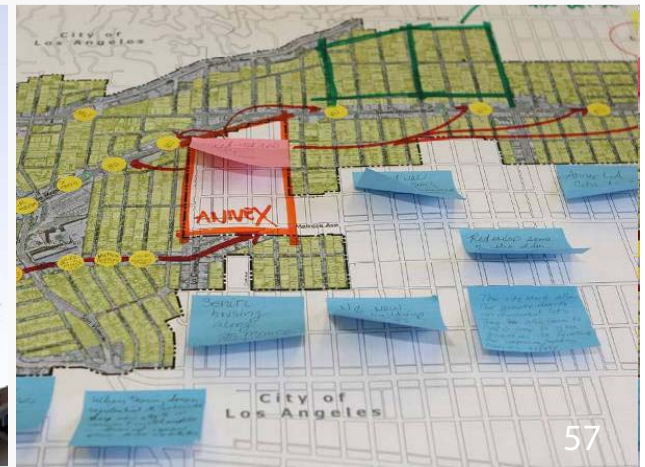
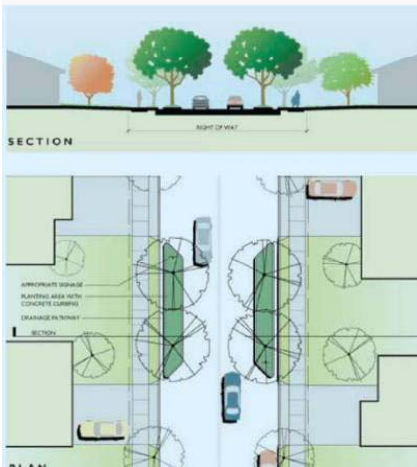
# How We Create Model Policy

Criteria	Process	Features
<ul style="list-style-type: none"><li>• Legally sound</li><li>• Strong</li><li>• Realistic</li></ul>	<ul style="list-style-type: none"><li>• Survey of existing policies</li><li>• Analysis of legal issues</li><li>• Expert review &amp; revision</li></ul>	<ul style="list-style-type: none"><li>• Comments to explain important provisions or options</li><li>• Tailored to community's need</li></ul>



# What Types of Policies Support Complete Streets?

- Local ordinances & resolutions
- General plans & zoning regulations
- State/federal laws
- Design & engineering standards
- Agency policies
- Tax ordinances



# Policy Approach

- **Flexible**  
Must adapt to many different kinds of streets & communities
- **Forward-Thinking**  
Leverage upcoming project/plan opportunities
- **Strong**  
Require accountability (*WHO* must do *WHAT*)



***Anytown, USA***



**Before**



**After**



*Source: Putting Smart Growth to Work in Rural Communities*

# Local Policy Development

## MTC's Complete Streets Sample Resolution



# **O BAG Complete Streets Elements**

## **Complete Streets Principles**

1. Complete Streets Serving All Users
2. Context Sensitivity
3. Complete Streets Routinely Addressed by All Departments
4. All Projects and Phases

## **Implementation**

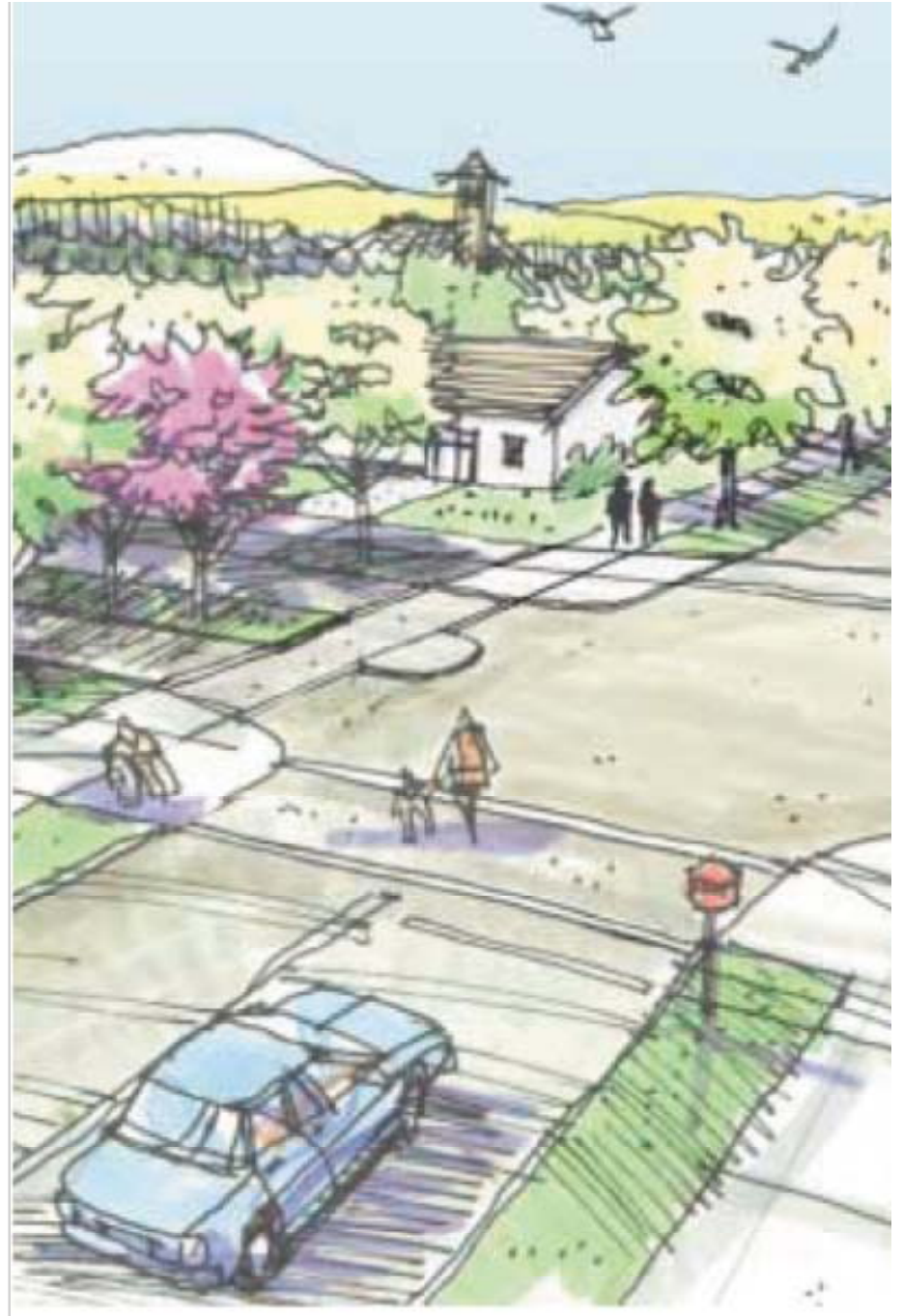
5. Plan Consultation and Consistency
6. Street Network/Connectivity
7. Bicycle and Pedestrian Advisory Committee Consultation
8. Evaluation

## **Exemptions**

9. Leadership Approval for Exemptions

# Preamble: Findings Section

- Presents data on community needs & context
- Illustrates why policies are needed
- Protects against political/legal challenge



# Whereas...

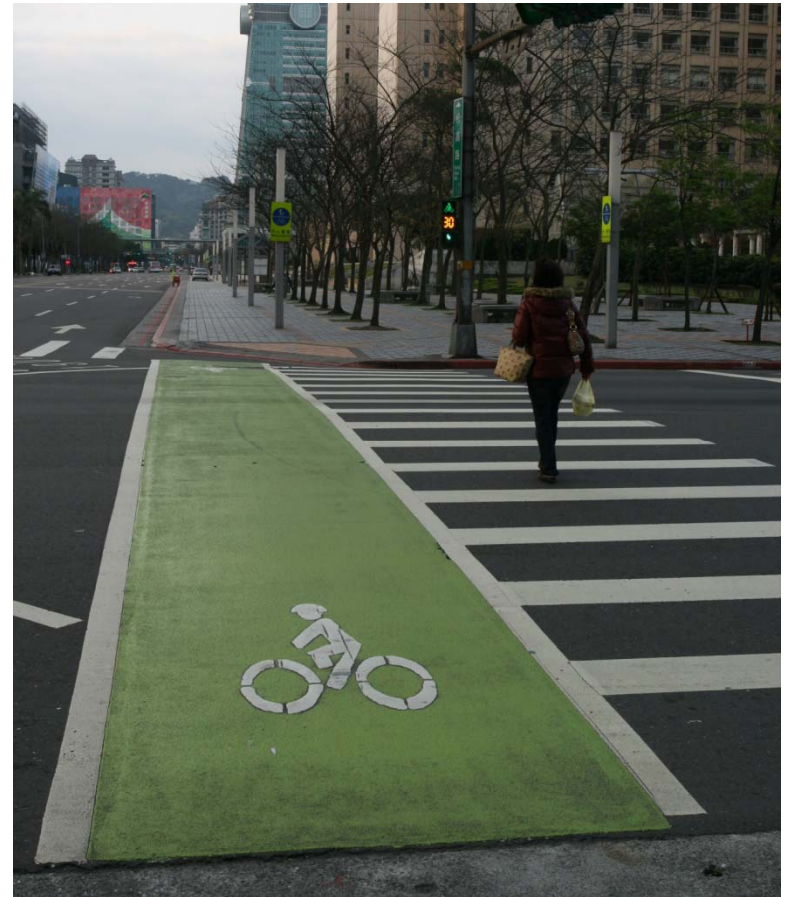
### Complete Streets Resolution (2010)

- ...Promoting pedestrian, bicycle and transit travel as an alternative to automobiles reduces **negative environmental impacts, promotes healthy living and is less costly** to the commuter.
- ...**About one-third of Americans and 30% of Washingtonians do not drive**, including low-income Americans who cannot afford cars and school age children and an increasing number of older adults.
- ...Forty percent of adults ages 50 and older reported inadequate sidewalks in their neighborhoods. **Nearly fifty percent reported they cannot cross main roads close to their home safely.**



# 1. Complete Streets Serving All Users

Transportation improvements will be planned, designed, constructed, operated and maintained to support safe and convenient access for all users



## Example: MTC Sample Resolution

*[Jurisdiction] expresses its commitment to creating and maintaining Complete Streets that provide **safe, comfortable, and convenient travel**... through a comprehensive, integrated transportation network that serves all categories of users, including **pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial goods, users and operators of public transportation, seniors, children, youth, and families.***



## Example: Redwood City, CA

### General Plan (2010)

*Support using the concept of complete streets to design, construct, operate, and maintain City and private streets to enable safe, comfortable, and attractive access and travel for **pedestrians, bicyclists, motorists, and transit users of all ages, abilities, and preferences.***



## 2. Context Sensitivity

Planning and implementation of transportation projects shall:

- Reflect conditions within and surrounding the project area
- Include working with residents and businesses



## Example: MTC Sample Resolution

*In planning and implementing street projects, departments and agencies of [Jurisdiction] shall maintain sensitivity to local conditions **in both residential and business districts as well as urban, suburban, and rural areas...***

*...and shall work with **residents, merchants, and other stakeholders** to ensure that a strong sense of place ensues.*



### DOT Six-Step Planning Process

1. *Define the existing and future land use and urban design context*
2. *Define the existing and future transportation context*
3. *Identify deficiencies*
4. *Describe future objectives*
5. *Recommend street classification and test initial cross-section*
6. *Describe trade-offs and select cross-section*



### 3. Complete Streets in All Departments

All departments in the jurisdiction and outside agencies whose work affects the roadway must incorporate a complete streets approach



## Example: MTC Sample Resolution

*All relevant departments and agencies of [Jurisdiction] shall work towards making Complete Streets practices a **routine part of everyday operations**... and **work in coordination with other departments, agencies, and jurisdictions to maximize opportunities for Complete Streets, connectivity, and cooperation.***



### Ordinance (2010)

*This policy requires consideration of complete streets elements by the **Planning and Zoning Commission and Board of Zoning Appeals**. Accordingly, the city strongly encourages **all developers and builders** to obtain and comply with, as appropriate, these standards.*



## 4. All Projects/Phases

The policy will apply to all roadway projects including:

- New construction, reconstruction, retrofits, repaving, rehabilitation, or changes in the allocation of pavement space on an existing roadway
- New privately built roads and easements intended for private use



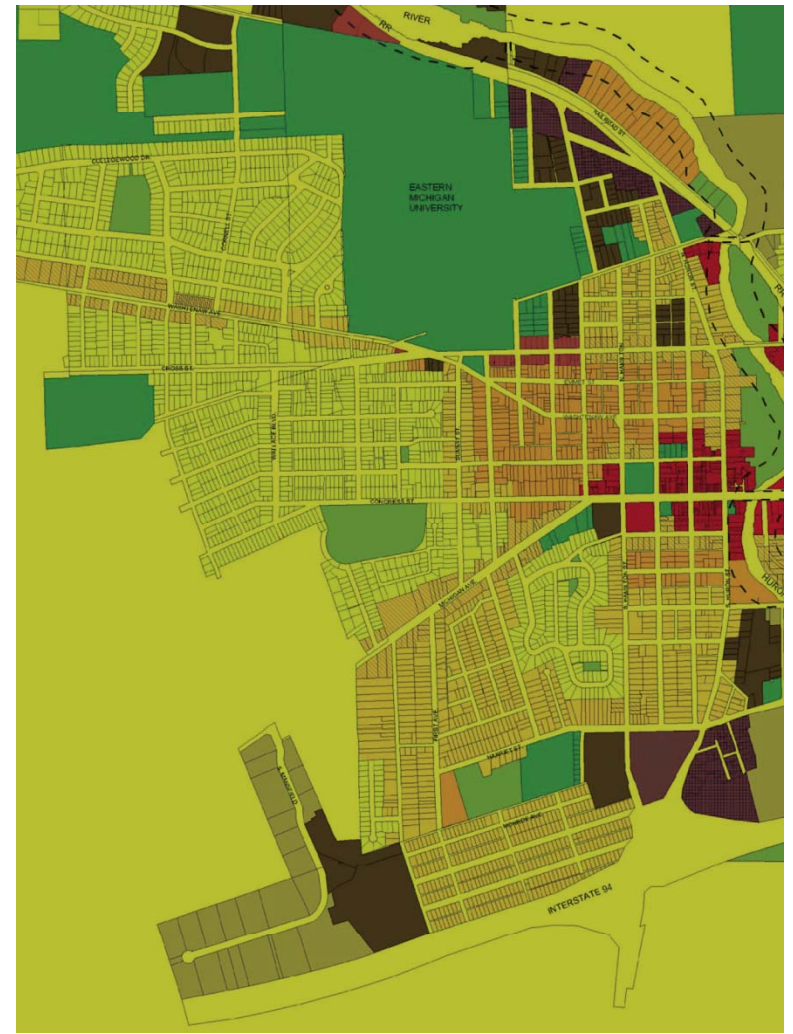
## Example: MTC Sample Resolution

*Complete Streets infrastructure... shall be incorporated into all planning, funding, design, approval, and implementation processes for any **construction, reconstruction, retrofit, maintenance, operations, alteration, or repair of streets...***



## 5. Plan Consultation

Proposed improvements should be evaluated for consistency with all local bicycle, pedestrian and transportation plans



## Example: MTC Sample Resolution

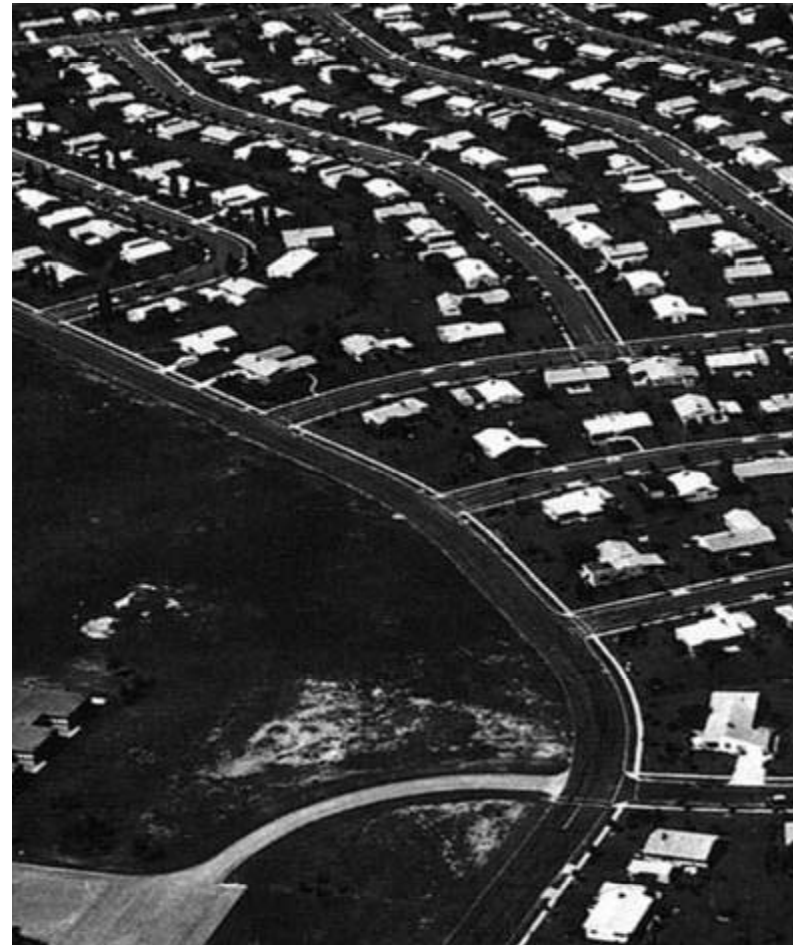
*Maintenance, planning, and design of projects affecting the transportation system shall be consistent with **local bicycle, pedestrian, transit, multimodal, and other relevant plans**, except that where such consistency cannot be achieved without negative consequences...*

### **Implementation tip:**

Specify that these and other plans shall also be amended to reflect complete streets approach.

## 6. Street Network/Connectivity

The transportation should provide a connected network of facilities accommodating all modes of travel, between popular destinations



## Example: MTC Sample Resolution

*As feasible, [Jurisdiction] shall incorporate Complete Streets infrastructure into existing streets... with the particular goal of creating a **connected network of facilities** accommodating each category of users, and **increasing connectivity across jurisdictional boundaries** and for existing and anticipated future areas of travel origination or destination.*



### General Plan (2008)

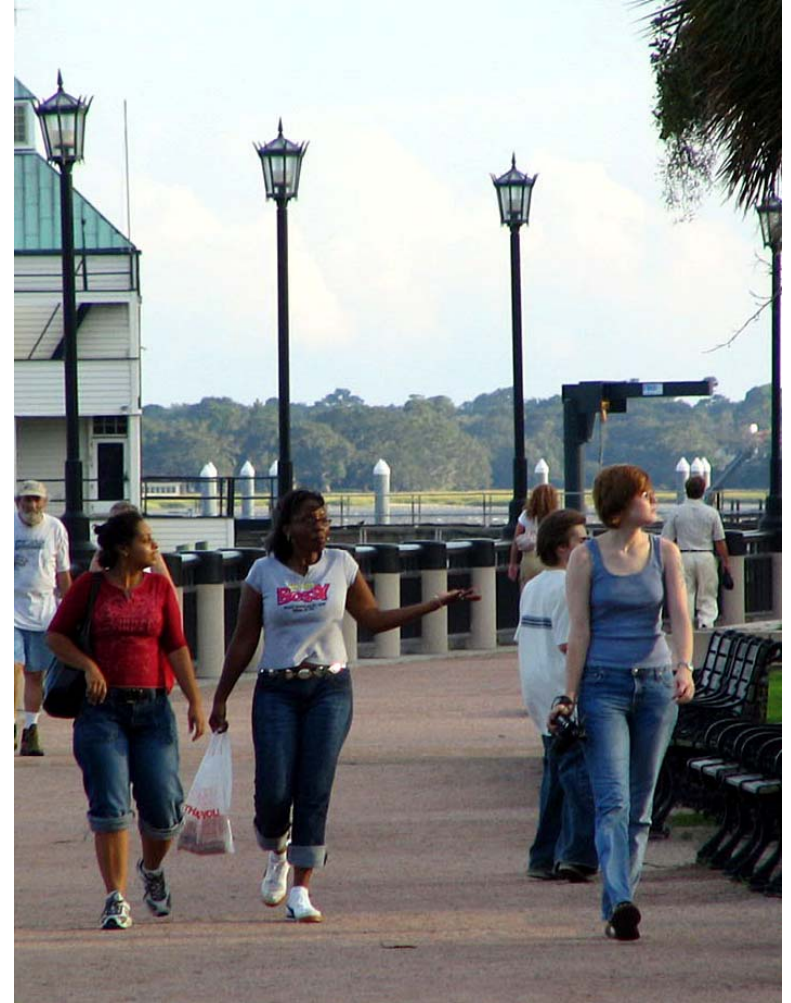
*Work toward achieving a **complete, functional and interconnected pedestrian network.***

- 1. Close gaps in the sidewalk network.*
- 2. Provide convenient pedestrian connections between land uses, including shortcuts where possible.*
- 3. Design grading plans to provide convenient and accessible pedestrian connections from new development to adjacent uses and streets.*



## 7. BPAC Consultation

Input shall be solicited from local bicycle and pedestrian advisory committees (BPACs) or similar public advisory group in an early project development phase to verify bicycling and pedestrian needs for projects



## Example: MTC Sample Resolution

*... Transportation projects shall be reviewed by the Bicycle and Pedestrian Advisory Committee early in the planning and design stage, to provide... an **opportunity to provide comments and recommendations** regarding Complete Streets features to be incorporated into the project.*



## 8. Evaluation

The jurisdiction will establish a means to collect data and indicate how the jurisdiction is evaluating implementation of complete streets policies



## Example: MTC Sample Resolution

*All relevant agencies or departments shall perform evaluations of how well the streets and transportation network of [Jurisdiction] are serving each category of users by **collecting baseline data and collecting follow-up data on a regular basis.***



## Example: Baldwin Park, CA

### Administrative Policy (2011)

*The City will evaluate this Complete Streets Policy using the following performance measures:*

- *Miles of on-street bikeways defined by streets with clearly marked or signed bicycle accommodation.*
- *Miles of streets with pedestrian accommodation (goal – all)*
- *Number and severity of pedestrian-vehicle and bicycle-vehicle crashes.*
- *Track Fitnessgram data of Baldwin Park Unified School Dist. Students*



## 9. Leadership Approval for Exemptions

Plans/projects that seek exemptions from complete streets approach must provide documentation on why all modes were not included in the project, to be signed off by the Public Works Director or equivalent



## Example: MTC Sample Resolution

*Projects that seek Complete Streets exemptions must provide written finding of why accommodations for all modes that were not included in the project and signed off by the Public Works Director or equivalent high level staff person. **Projects that are granted exceptions must be made publically available for review.***



# Exceptions Provide for Flexibility and Accountability

- **Flexibility**

Exceptions are very broad

- **Accountability**

Exceptions can only be exercised where there is written approval by a senior manager

**Implementation Tip:**

Specify that data and documentation supporting the need for the exception are required.

# Exceptions Process

*Complete Streets infrastructure “may be excluded upon written approval by [Senior Manager], where documentation and data indicate that...”*



# Exceptions Process

- Bicyclists or pedestrians barred by law
- Disproportionate cost
- Documented absence of current **and** future need
- Significant adverse effects outweigh positive effects of the infrastructure



## Example: Bloomington/Monroe County, IN

MPO Policy (2009)

*The Policy Committee may allow such an exemption under certain circumstances, including the following:*

- 1. The project involves a roadway that bicyclists and pedestrians are prohibited by law from using*
- 2. There are extreme topographic or natural resource constraints*
- 3. A reasonable and equivalent alternative already exists for certain users or is programmed in the TIP as a separate project*



# Conclusions & Resources



# Local Jobs Created per \$1 M Spent

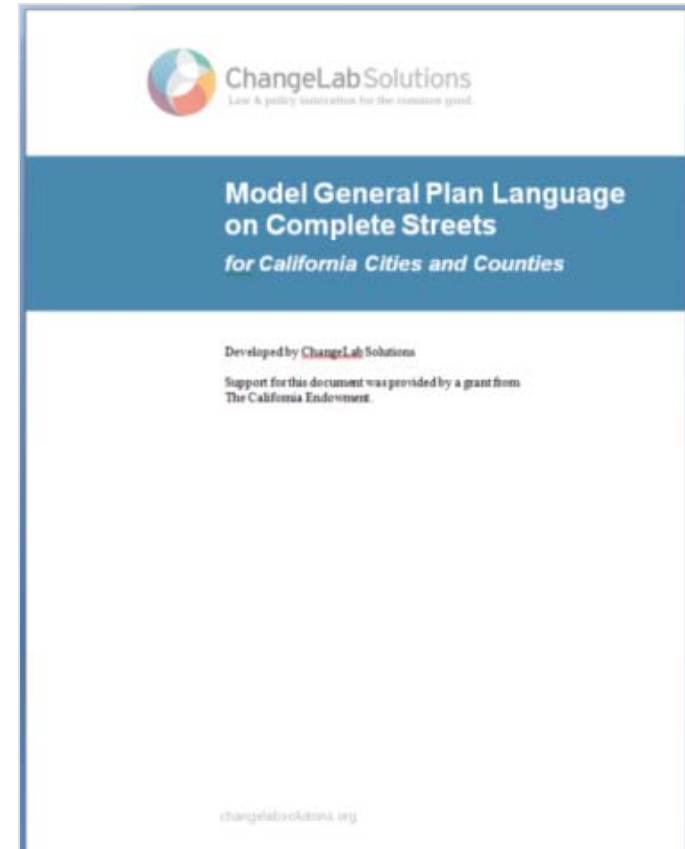
- Road-only projects – 7.8
- Multi-use trails – 9.6
- Pedestrian projects – 10
- Cycling projects – 11.4

*Source: Heidi Garrett-Peltier. 2011. Pedestrian and Bicycle Infrastructure: A National Study Of Employment Impacts. Political Economy Research Institute University of Massachusetts, Amherst.*

# Resources

## CA & National model policies:

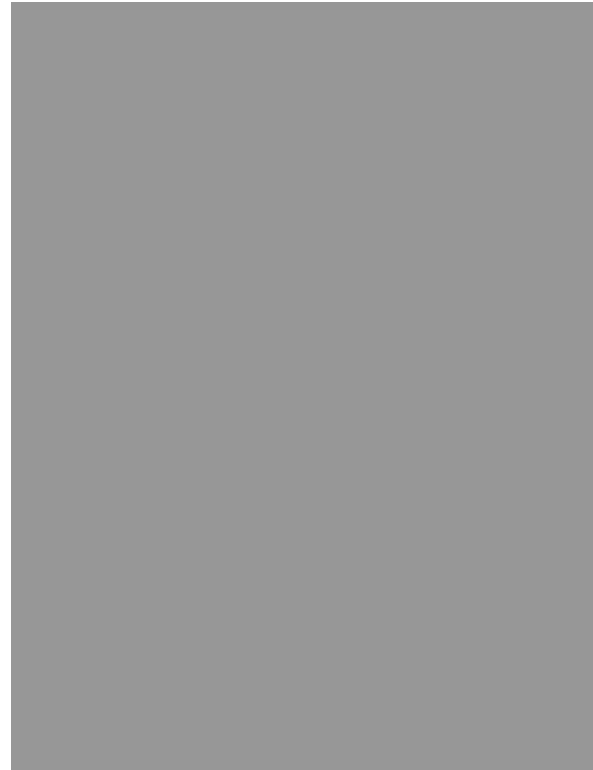
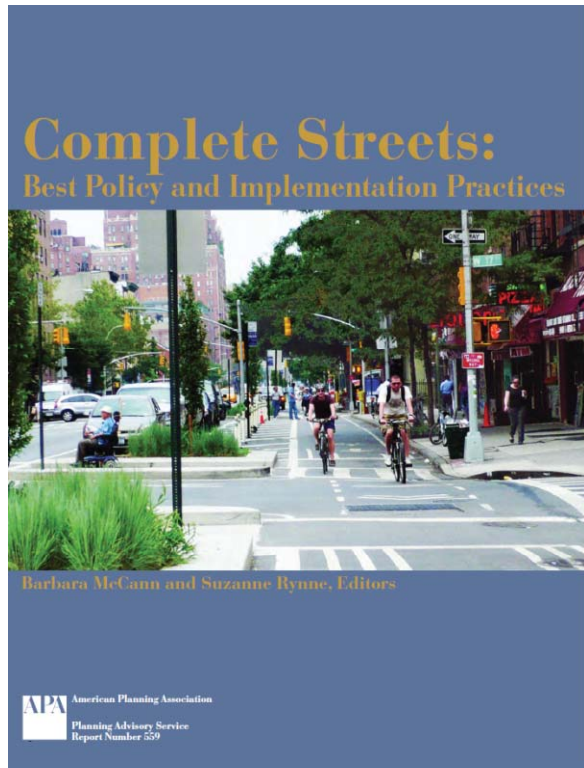
- Findings
- Resolution
- Ordinance
- General plan language



Available at: [changelabsolutions.org](http://changelabsolutions.org)



# Resources

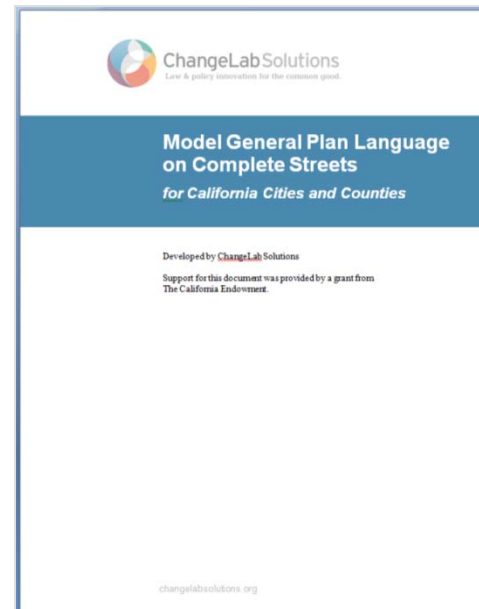
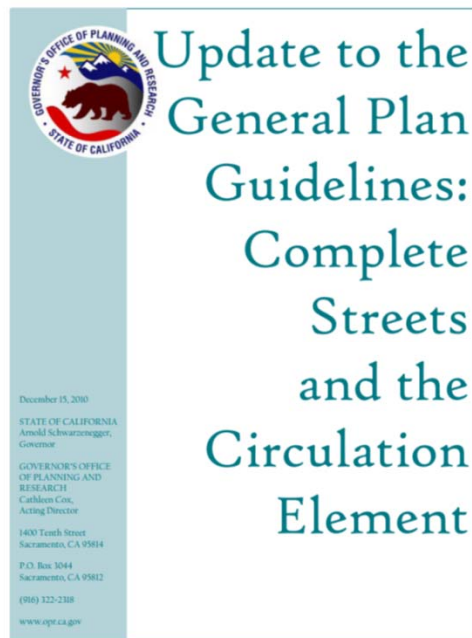




**Thank you!**

**Lisa Chen, MCP, MPH**  
**[lchen@changelabsolutions.org](mailto:lchen@changelabsolutions.org)**  
**510.281.5621**

# Integrating Complete Streets Policy Language into Plans



Brett Hondorp, Alta Planning + Design

# Why Include CS in a General Plan?

- Promote street design and land use policies that improve safety and mobility options
- Provide guidance and specific implementation actions for CS policies
- Required by California law and by MTC for OBAG Cycle 3 eligibility



# Office of Planning and Research (OPR) Guidance

- GC 65302(b)(2)(A):

*Commencing January 1, 2011, upon substantial revision of the circulation element, the legislative body shall **modify the circulation element** to plan for a **balanced, multimodal transportation network that meets the needs of all users of the streets**, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan.*

- *General Plan Guidelines Circulation Element updated to reflect Complete Streets*

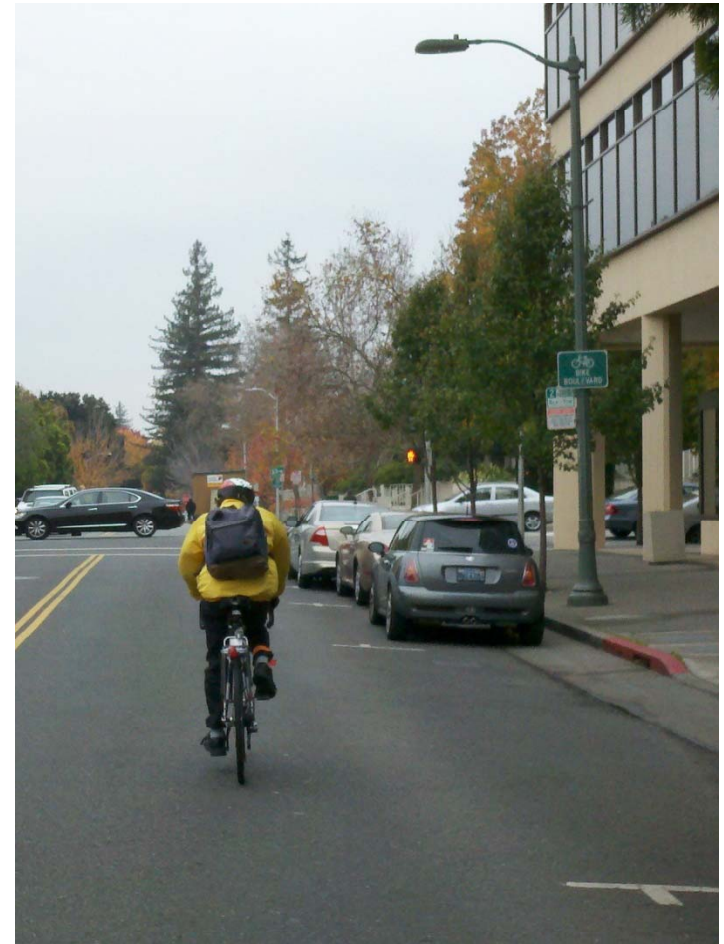
# OBAG General Plan Update

- General Plan must comply with the Complete Streets Act of 2008
- Required to be eligible for the OBAG Cycle after FY 2015-16



# Integrating CS into Local Plans

- General Plan
  - Overarching Vision Statement
  - Each Element has Goals, Objectives and Implementing Policies
  - Integrated into other elements
- Other local plans
  - Bicycle and Pedestrian Plans
  - Zoning / Subdivision
  - Street Standards

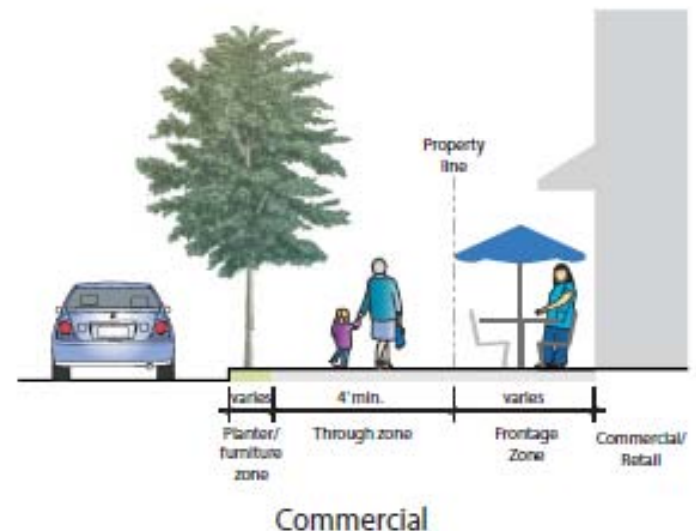


# General Plan: Example Vision Statement

The community of [Jurisdiction]  
envision a transportation  
system that:

- Encourages healthy, active living
- Promotes transportation options and independent mobility
- Increases community safety and access to healthy food
- Reduces environmental impact
- Mitigates climate change
- Supports greater social interaction and community identity

**Sidewalk Zones:**



# Circulation Element:

## Example Goal Statement

Provide “Complete Streets” that are safe, comfortable, and convenient routes for walking, bicycling, and public transportation to increase use of these modes of transportation, enable active travel as part of daily activities, reduce pollution, and meet the needs of all users of the streets, including bicyclists, children, persons with disabilities, pedestrians, users of public transportation, seniors, youth, and families, while continuing to maintain a safe and effective transportation system for motorists and movers of commercial goods consistent with the other goals, objectives, and policies of this plan.

# **Circulation Element:**

## **Example Objective Statements**

- Integrate CS infrastructure and design features into street design and construction
- Make Complete Streets practices a routine part of [Jurisdiction]’s everyday operations
- Plan and develop a comprehensive and convenient bicycle and pedestrian transportation network
- Promote safety of bicyclists, pedestrians, and public transportation
- Make public transportation an interconnected part of the transportation network

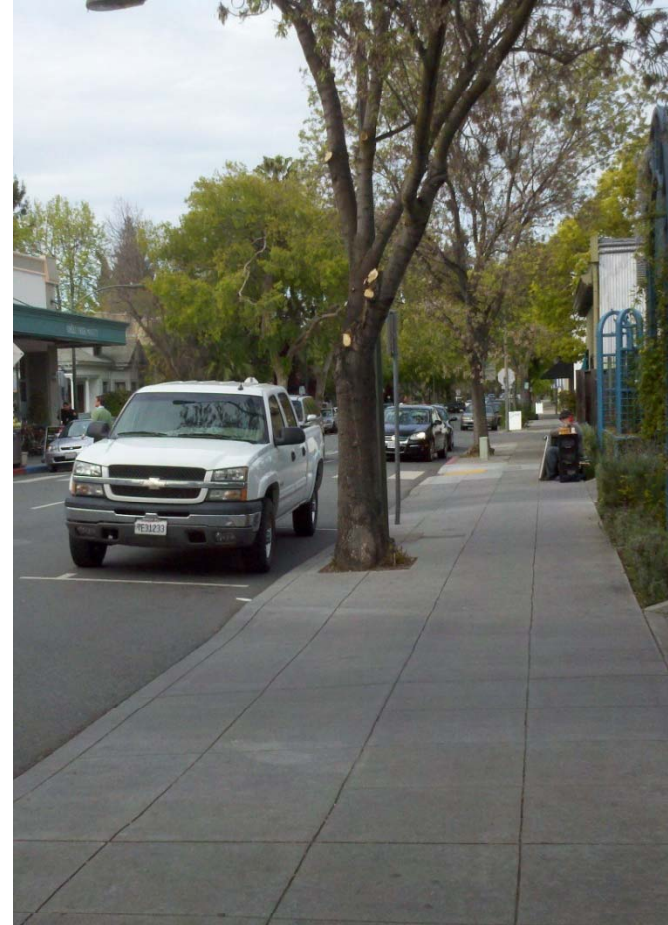
# **Circulation Element:**

## **Example Implementing Policies**

- Develop infrastructure – sidewalks, shared use paths, bike lanes, refuge islands, curb ramps, transit shelters, pedestrian scale lighting
- Adopt or revise specific codes, guidelines or regulations
- Identify measurable performance standards and collect data
- Develop funding strategies
- Make training available to staff

# CS in Land Use Elements

- Land use patterns and decisions encourage multi-modal choices
- Neighborhoods' physical layout and land use mix promote multiple modes to access destinations



# CS in Public Facilities/Capital Improvements Elements

Provide children with safe and appealing opportunities for walking and bicycling to school



# CS in Open Space or Parks and Recreation Elements

Increase use of parks and open space for physical activity and encourage residents to access parks by multiple modes



# CS in Community Health Elements

- Ensure that residents of **all ages and income levels** can walk and bicycle to meet their daily needs
- Reduce **asthma levels, social isolation, violent street crime incidents**, and the severity and number of **pedestrian and bicycling collisions** by decreasing vehicular traffic and increasing pedestrian activity



## Example: Santa Barbara, CA

### General Plan Circulation Element (1998) Goals:

- Strive to Achieve Equality of Choice Among Modes
- Increase the Availability and Use of Transit
- Increase Bicycling as a Transportation Mode

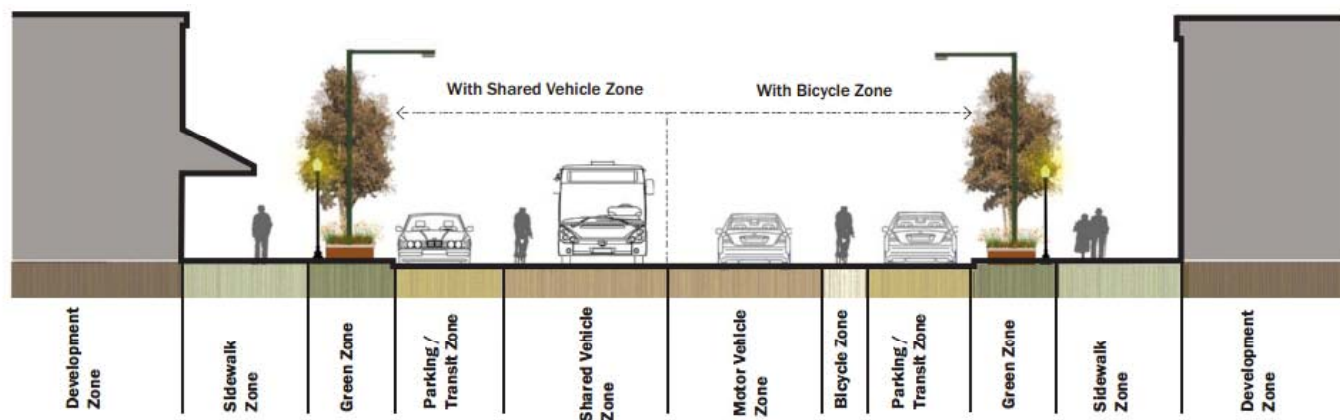


*Source: Santa Barbara, CA (Dan Burden, Walkable and Livable Communities Institute, Inc.)*

## Example: San Ramon, CA

Integration of Land Use and Transportation Policy 5.6-I-6:  
*Encourage new development to include a **mix of uses** and **Complete Streets concepts** that will allow people to walk and bike between destinations and reduce the amount of automobile vehicle miles traveled*

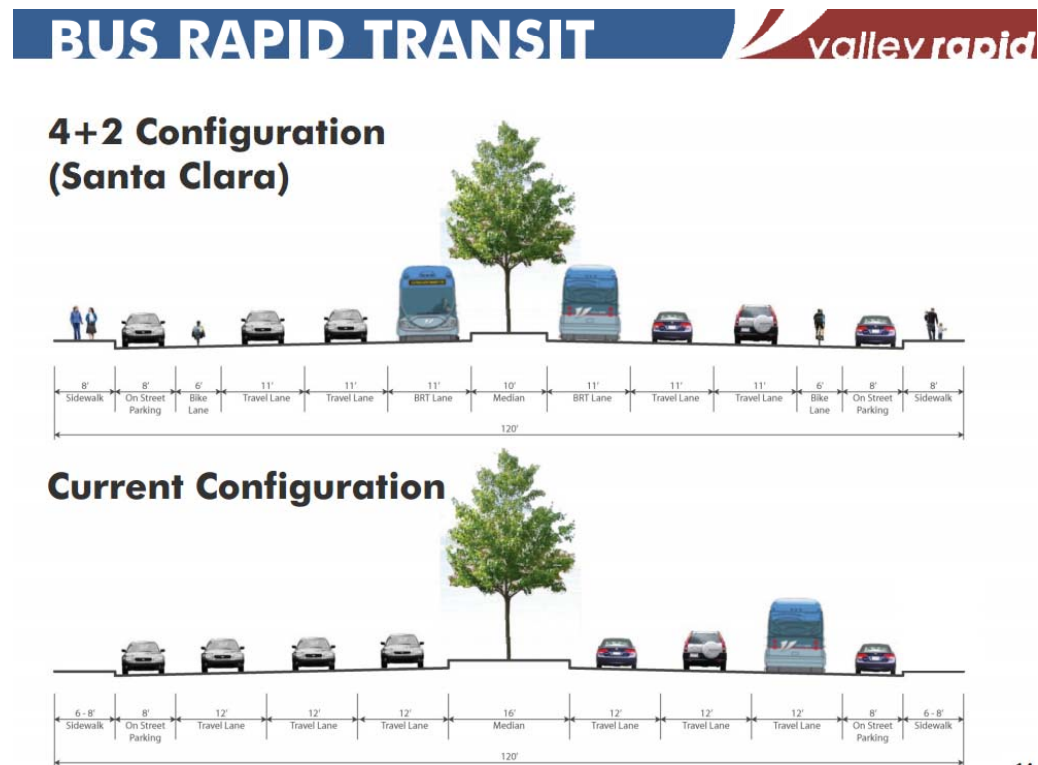
Transportation Infrastructure Policy 5.3-I-1:  
*Develop Complete Streets Guidelines that **establish local review and assessment criteria** and encourage development of a multimodal transportation network to meet community needs.*



Source: North Carolina Complete Streets Planning and Design Guidelines

# General Plan Amendment Process

- Track changes in Circulation Element goals & policies
- Add a sections with policy intent for nonmotorized modes
- Propose additions to the General Plan from Bike/Ped plan and Streetscape Plans
- Bike/Ped plan can be adopted separately

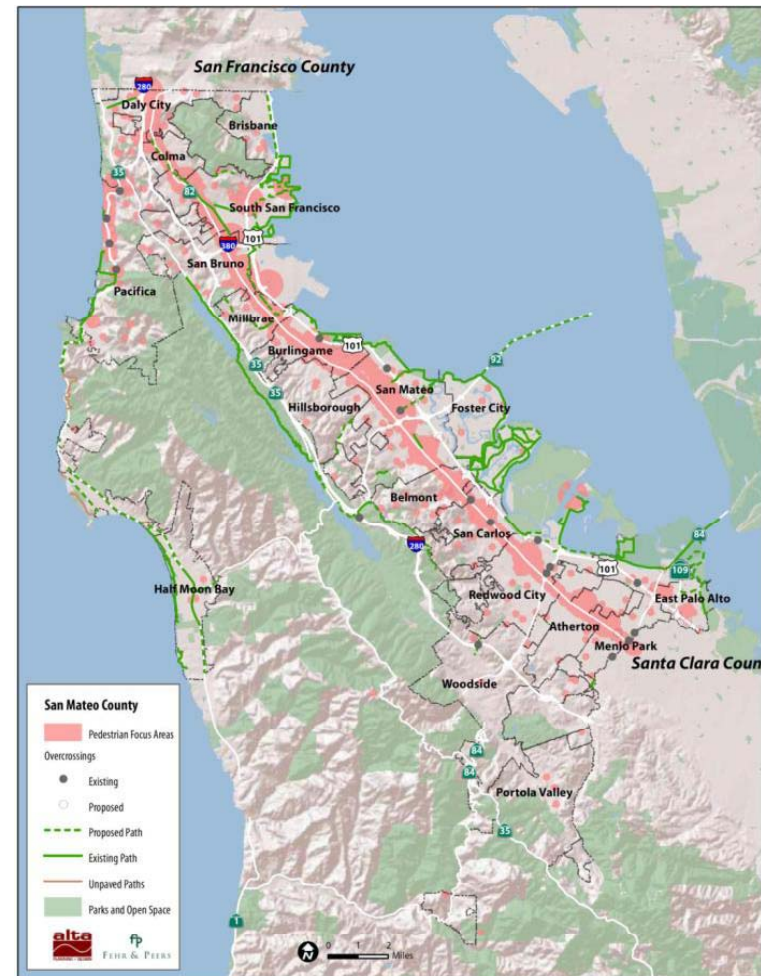


Source: Grand Boulevard Task Force

14

# Bicycle and Pedestrian Plans Provide Tools & Techniques for Implementing CS

- Data Collection
- Multi-modal policies and ordinances
- Network of improvements
- Allocation of right-of-way
- Street design standards
- Level of Service policies
- Project approval process
- Facilities
- Performance measures



Source: San Mateo County Comprehensive Bicycle and Pedestrian Plan

# Data Collection

- Determine latent demand
  - Current mode split (Census/ACS data)
  - User preferences (counts and surveys)
- Identify safety concerns
  - SWITRS crash data



Grand Boulevard Initiative Existing Conditions Report 2011

Map 6: SamTrans and VTA Bus Ridership  
by Bus Stop | May 2011



# Multi-Modal Policies

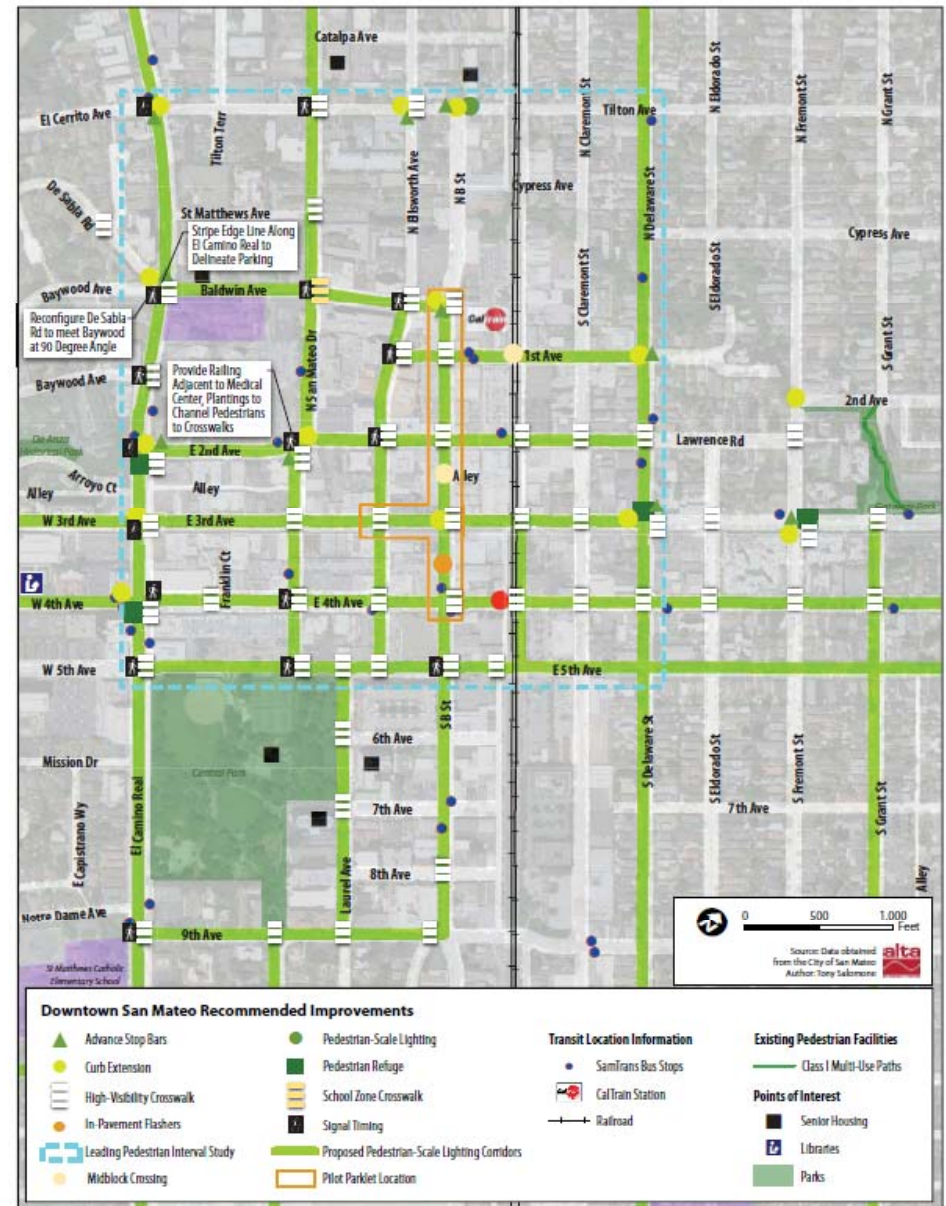
- Routine accommodation
- Bicycle parking
- Safe Routes to School
- Bicycle- and pedestrian-supportive policies
- Transportation operations management policies (traffic calming, signal control)
- Streetscape guidelines
- Transportation and land use integration (reduce trip lengths)
- Consider future transit service needs



# Network of Improvements

OPR guidance:

- All users to effectively travel by motor vehicle, foot, bicycle, and transit to reach key destinations within their community and the larger region
- Calls out schools as key nodes



Draft San Mateo Citywide Pedestrian Master Plan  
Downtown San Mateo



# Allocation of Right-of-Way

Allocation based on a blend of:

- Level of service standards
- Volumes of people and vehicles
- Historic design and usage patterns
- Topography, adjacent land use
- Design standards
- Formal and informal policies



## Example: San Mateo Bicycle and Pedestrian Plan, CA

### Goal 4: Complete Streets and Routine Accommodation of Bicyclists and Pedestrians

*Policy 4.2: ...encourage that local implementing agencies... provide at **least equally safe and convenient alternatives** if [local transportation policies] result in the degradation of bicycle or pedestrian access; and that they provide temporary accommodations for pedestrians and bicyclists during construction.*



# Exceptions

Agencies 'shall consider the needs' of bicyclists and pedestrians and provide facilities:

- 'where appropriate'
- 'where needed'
- 'where feasible'
- 'where cost is not excessively disproportionate to the need or probable use'
- 'absence of need'
- 'unless there are safety concerns'



## Example: Alameda County Guidance

- Jurisdictions must prepare a process for approving exceptions, including **who is allowed to sign off on exceptions**
- Written findings for exceptions must be included in a memorandum, signed off by a high level staff person, such as the Public Works director, or senior-level designee, and **made publicly available**
- Exceptions must explain **why** accommodations for all users and modes were not included in the plan or project

### Administrative Policy #027 (2011)

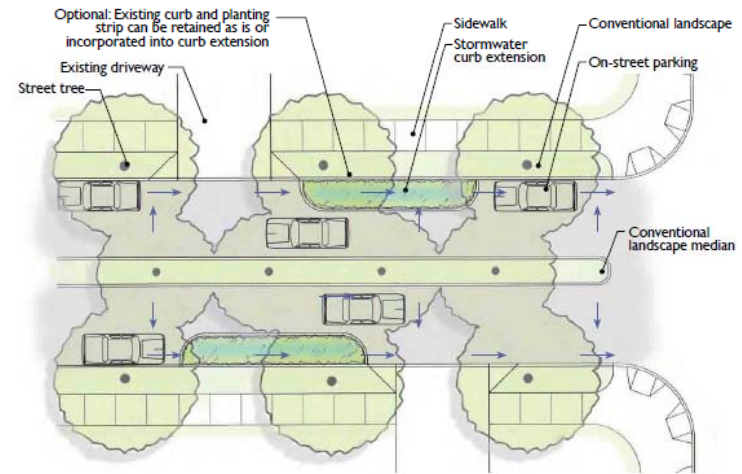
- *A project involved only ordinary or emergency maintenance activities...*
- *The City Council exempts a project due to excessive and disproportionate cost...*
- *...the construction is not practically feasible or cost effective because of ...environmental impacts...*

*Exceptions... will be documented and be made available for public access at least 21 days prior to decision*

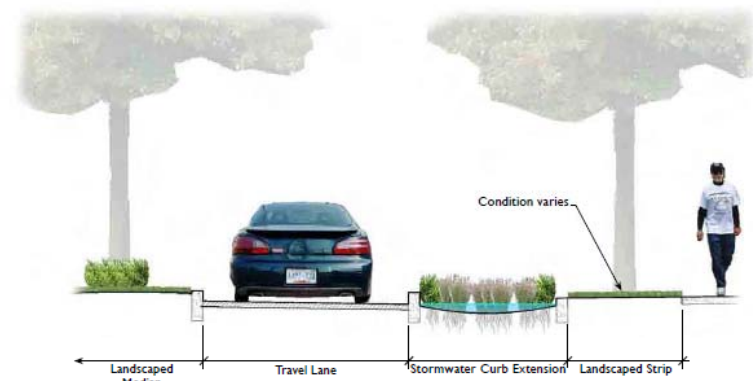
# Street Design Standards

- Connection with Level of Service standards
- By street classification
- By land use
- By neighborhood/district
- Context sensitivity

**LOW-DENSITY RESIDENTIAL STREETS:** Landscape Median with Stormwater Curb Extensions



**Stormwater Curb Extension & Landscape Median Plan View**



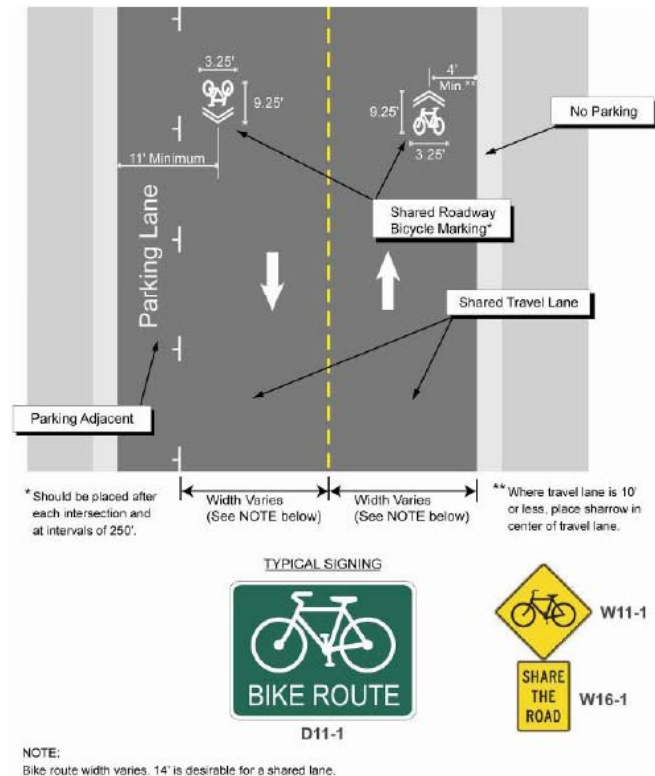
**Stormwater Curb Extension & Landscape Median Typical Cross Section**

## Example: Redwood City, CA

### General Plan Circulation Element 2010

...the Redwood City General Plan organizes streets and other transportation facilities according to **typologies** that consider the context and prioritize different travel modes for each street. Together, the typologies provide a **network of “complete streets”** to accommodate all types of local transportation modes...

...These typologies will guide the development of **standards**, to ensure transportation plans and improvements consider relationships to surrounding land uses, appropriate travel speeds, and the need to accommodate multiple travel modes and various users.



### Shared Lane Marking Section

Source: Redwood City General Plan

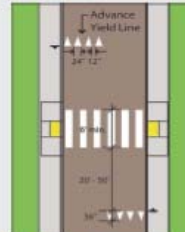
# Street Design Resources

- CA MUTCD
- Caltrans Highway Design Manual
- FHWA publications
- ITE publications ([www.ite.org](http://www.ite.org))
- AASHTO Green Book
- NACTO Urban Bikeway Design Guide
- Bike/Ped Info Center

## Improvement Toolbox

### Uncontrolled Crossings

**Opportunity Intersections:**  
University Avenue C Street D Street E Street  
Fire Station Access I Street J Street K Street



**Advance yield lines** indicate the point where vehicles should yield at uncontrolled locations. Yield lines should be accompanied by "Yield Here" signs. These markings are effective in midblock locations, where there is no intersection.



**In-pavement flashers** are a series of amber or white lights embedded in the pavement parallel to a marked crosswalk that alert motorists that a pedestrian is or is planning to cross the street at the crosswalk.



**Crossing beacons** include the pedestrian hybrid beacon (PHB) and the rectangular rapid flash beacon (RRFB).



**Bicycle boxes**  
A right angle extension of a bike lane, a bike box allows a bicyclist to get to the front of a traffic cue and proceed first on a green light. They can facilitate left turns for bicycles and lower both driver and bicyclist encroachment on the crosswalk.  
\*Transition treatment

### Signalized Crossings

**Opportunity Intersections:**  
A Street B Street F Street  
G Street L Street



**Audible signals** emit sounds to guide visually impaired pedestrians by indicating when to cross. Different audible signals are usually used to indicate crossing direction. Sounds are activated by the pedestrian push button.



**Pedestrian countdown heads** provide the time left before a signal change, giving certainty on whether pedestrians can make it across the street in time.



**Bicycle signals** provide a separate signal phase for bicycles at an intersection. They are especially useful at preventing collisions between turning drivers and through-traffic bicyclists.  
\*Transition treatment



**A lead pedestrian interval (LPI)** is a tool where traffic signals are programmed to give pedestrians a walk indication two to four seconds before vehicles receive the green light to proceed. Crossing with this "head start" allows pedestrians to be more visible to motorists approaching the intersection.



**Advance stop bars** increase pedestrian visibility by stopping motor vehicles in advance of marked crosswalks at stop controlled or signalized intersections.



**Traffic signal timing** is the amount of time each phase of a signal is allotted for vehicles, bicycles, and pedestrians to cross.

# Level of Service Policies

- LOS determines allocation of space
- Multi-modal LOS
- Corridor/district LOS standards
- Accepting congestion
- Unintended consequences
- Regional responsibilities/CMPs
- Reasonable solutions

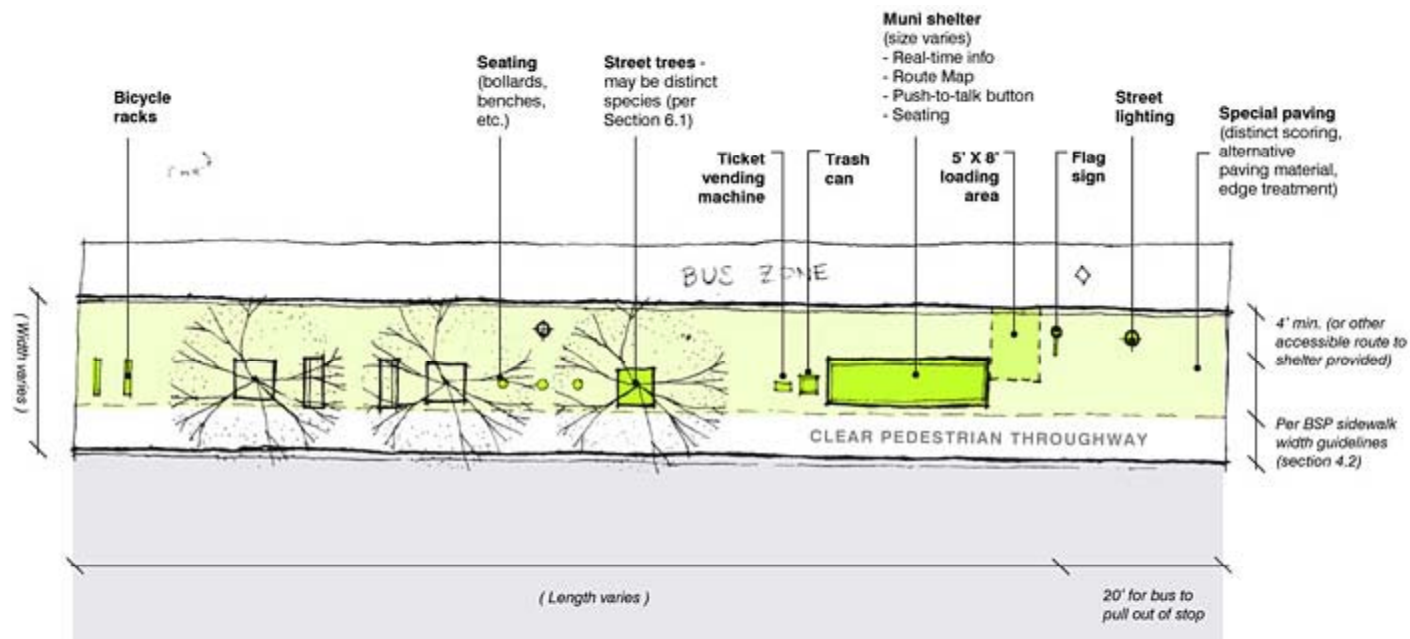
# Project Approval Process

- Adopted process
- Funded and trained staff
- How to handle routine maintenance projects
- Project prioritization

Accounts	Surface Alternatives*	Grade-Separated Alternatives
DESIGN AND CONNECTIVITY		
Urban Design Potential		
Multimodal Connectivity		
QUALITY OF SERVICE		
Local Transit		
Neighbourhood Impacts		
Bicycle and Pedestrian		
CONFLICT REDUCTION		
At Intersections		
Bicycle or Pedestrian/Motor Vehicle		
Bicycle/Pedestrian		
Bicycle/Transit		
Pedestrian/Transit		

# Facilities

- Sidewalks
- Crosswalks
- Curb extensions
- Plazas
- Transit service/stations



Source: San Francisco Better Streets Plan

# Facilities

- Bike lanes
- Bike paths/multi-use paths
- Cycle tracks
- Bike boulevards
- Calmed streets
- Bike routes



Source: NACTO Urban Bikeway Design Guide

### Ordinance 209-05 (2008)

*...project shall include, to the maximum extent possible, the following transit, pedestrian, and bicycle improvements:*

- Street and pedestrian-scale sidewalk lighting*
- Ped and bicycle safety improvement measures...*
- Appropriate access in accordance with the ADA*
- Public transit facilities accommodation...*
- Traffic calming devices, landscaping, streetscape amenities, etc.*

# Example: San Francisco, CA

## San Francisco Better Streets Guide



# Facilities in Rural Areas

## OPR Guidance:

- May have large distances between destinations
- Bicycle facilities may include roadway shoulders and/or state highway routes
- Pedestrian facilities may include roadway shoulders, benches, and covered bus stops



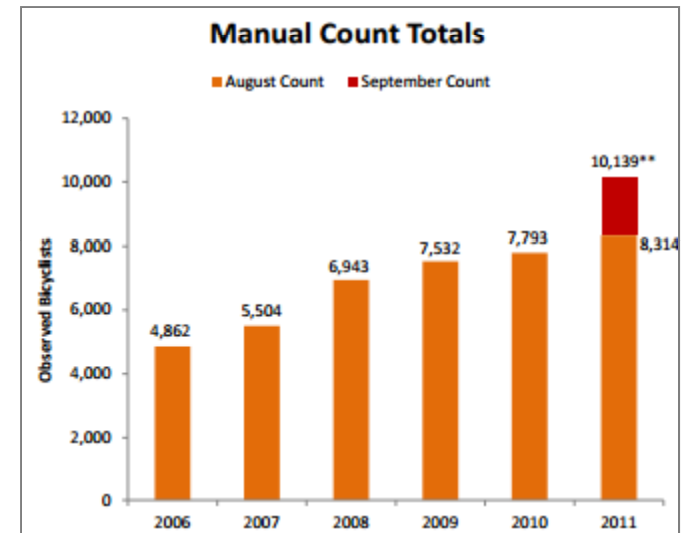
# Performance Measures - Facilities

- Linear feet of sidewalks
- Miles of on-street bicycle facilities
- # new/reconstructed curb ramps
- # new/repainted crosswalks
- # new street trees/% of streets with tree canopy
- % completion of bike/ped networks
- % transit stops with shelters
- % transit stops accessible via sidewalks and curb ramps



# Performance Measures – Other Metrics

- Efficiency of transit vehicles on routes
- Multimodal Level of Service (MMLOS)
- Auto Trips Generated (ATG)
- Rate of crashes/injuries/fatalities by mode
- Transportation mode shift
- % of children walking or bicycling to school
- Vehicle Miles Traveled (VMT) or Single Occupancy Vehicle (SOV) trip reduction
- Satisfaction levels (surveys)



Source: San Francisco 2011 Bicycle Count Report

### General Plan (2011)

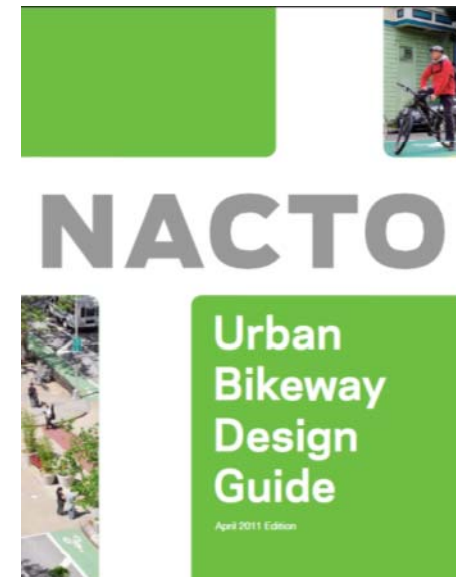
*Improve the existing street network to **minimize travel times** and **improve mobility** for transit, bicycle, and walking trips between new projects and surrounding land uses to reduce vehicle trips.*



### Bike Plan 2020 Goal:

- Expand bikeway network from 250 to 500 miles
- Increase bike trips from 1% to 5%
- Reduce bike collision rate by 50%
- Add 5,000 bike parking spaces
- Achieve “Gold” bike-friendly community ranking

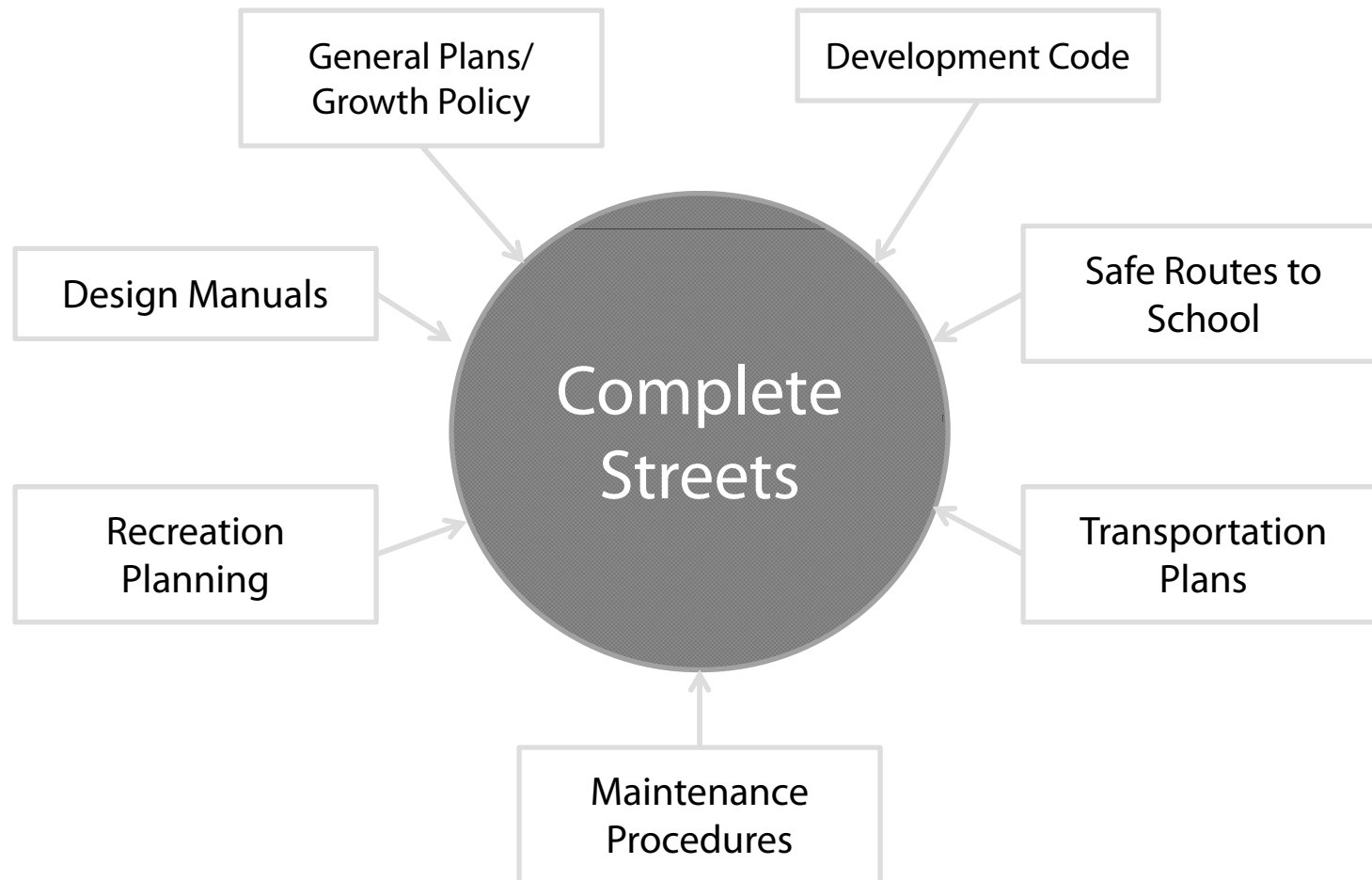
# Steps to Implementing Complete Streets Policies



Brett Hondorp, Alta Planning + Design

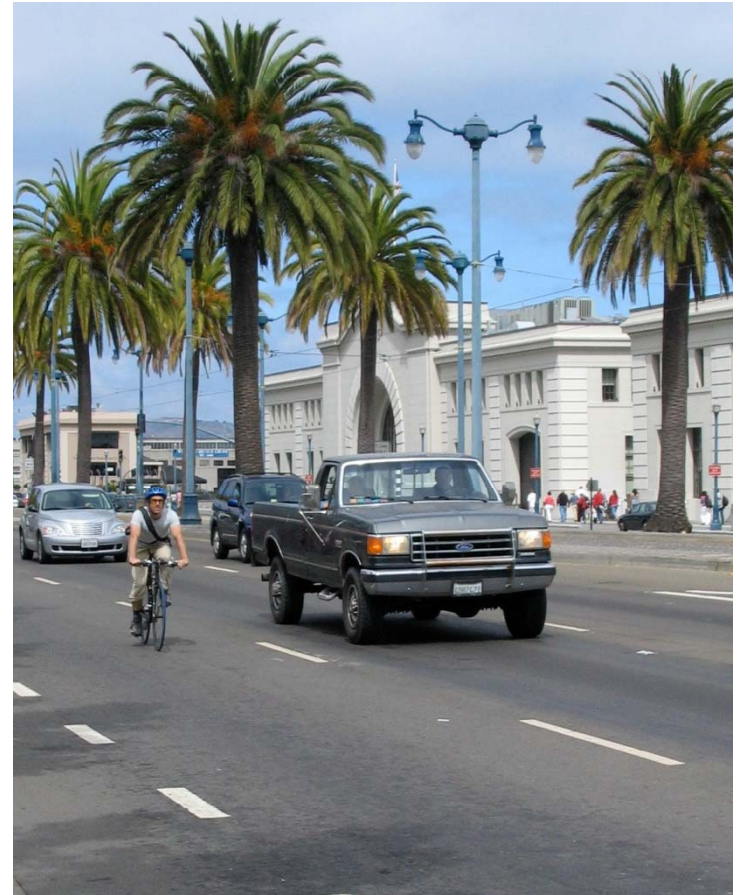
David Parisi, Parisi Associates Transportation Consulting

# Implementation



# Implementation

- Outreach and public support
- Policy framework/planning
- Level of Service standards
- Funding



## Example: Alameda County Guidance

Jurisdiction will include a list of **specific next steps** for implementation

- ...proposed improvements will be evaluated for consistency with all local plans...
- ... public input ... will be solicited from stakeholders



## Example: Baldwin Park, CA

### Administrative Policy (2011)

- (A) *Advisory Group. The City will establish an inter-departmental advisory committee to oversee the implementation of this policy ...*
- (B) *Inventory. The City will maintain a comprehensive inventory of the pedestrian and bicycling facility infrastructure ... and will prioritize projects to eliminate gaps in the sidewalk and bikeways networks...*



# Outreach and Political Support

- Advisory Committees
- Public/Private Partnerships
  - Integrate business community
  - Document economic and health benefits
- Elected officials
- Public support
  - Safe Routes to School
  - Transit, biking, and walking advocates



# Example: Citrus Heights, CA

City of Citrus Heights  
INCORPORATED JANUARY 1, 1997

Search...  
FIND



CommunityBusinessCity Hall On-line

Home | About Citrus Heights | City Services | What's New | FAQs | Calendar | Contact Us | SiteMap

News  
Volunteer Opportunities  
Current Openings  
Upcoming Events  
Holiday Schedule  
Photo Album  
Press Releases  
Community Newsletter  
E-Notifier  
Spotlight On Services  
Traffic Counts  
Open Bids, RFPs and RFQs  
City Council Live Webcast  
Citrus Heights Community Marching Band  
ABC Update  
Citrus Heights Complete Streets  
    Complete Streets Projects  
    Mesa Verde Multi-Use Trail  
    Stock Ranch Nature Preserve  
    Safe Routes to School  
    ADA Transition Plan

What's New » Citrus Heights Complete Streets » Complete Streets Projects

## Complete Streets Projects

### Complete Streets Philosophy

The City of Citrus Heights incorporates the complete streets philosophy into all construction projects. Mobility for all users of the transportation network - including not just autos but also transit users, bicyclists, and pedestrians of all ages and abilities - is an important issue for city residents. While the high volume of regional traffic passing through Citrus Heights benefits residents by increasing business activity, decisions for roadway improvements must give equal consideration to non-auto users of the roadways.



### Complete Streets Projects in Citrus Heights

#### Antelope Road Improvement Project

Completed in 2010, the Antelope Road Improvement Project was the first project in the city to incorporate the complete streets philosophy. The project dramatically improved the aesthetics of the area while also making it more functional for commuters and pedestrians. The project entailed widening Antelope Road from 4 lanes to 6 lanes, widening sidewalks, installing new ADA compliant ramps and pedestrian cross walks as well as improving landscape and installation of medians.

#### Auburn Boulevard Complete Streets Revitalization Project (ABCS)

The ABCS Project is an effort to revitalize the aging and disjointed 1.75-mile stretch of Auburn Boulevard from Sylvan Corners to the northern city limits into a complete street. The project scope includes: pedestrian safety improvements; bus pull-outs; ADA improvements; 9,600 lineal feet of bike lanes and sidewalks; 230 new street trees; 100 energy-efficient street lights; and aesthetic improvements. This project is currently in the second segment of the first phase. Visit [ABCupdate.net](http://ABCupdate.net) for more information and updates about the progress of the ABCS project.

# Implementation Strategies







Implement street improvements:

- When conducting routine repaving and street rehabilitation
- Through low-cost design features and retrofits
- Incorporated into the majority of projects (MTC CS Checklist)
- With interagency coordination









# Level of Service

LOS conventionally used to evaluate motor vehicle travel speed and delay

LEVELS OF SERVICE for Multi-Lane Highways			
Level of Service	Flow Conditions	Operating Speed (mph)	Technical Descriptions
<b>A</b>		60	Highest level of service. Traffic flows freely with little or no restrictions on maneuverability. <b>No delays</b>
<b>B</b>		60	Traffic flows freely, but drivers have slightly less freedom to maneuver. <b>No delays</b>
<b>C</b>		60	Density becomes noticeable with ability to maneuver limited by other vehicles. <b>Minimal delays</b>
<b>D</b>		57	Speed and ability to maneuver is severely restricted by increasing density of vehicles. <b>Minimal delays</b>
<b>E</b>		55	Unstable traffic flow. Speeds vary greatly and are unpredictable. <b>Minimal delays</b>
<b>F</b>		<55	Traffic flow is unstable, with brief periods of movement followed by forced stops. <b>Significant delays</b>

Source: 2000 HCM, Exhibit 21-3, Speed-Flow Curves with LOS Criteria for Multi-Lane Highways

LEVELS OF SERVICE Unsignalized Intersections <small>Four-Way Stop</small>			
Level of Service	Flow Conditions	Delay per Vehicle (seconds)	Technical Descriptions
<b>A</b>		<10	<b>Very short delays</b>
<b>B</b>		10-15	<b>Short delays</b>
<b>C</b>		16-25	<b>Minimal delays</b>
<b>D</b>		26-35	<b>Minimal delays</b>
<b>E</b>		36-50	<b>Significant delays</b>
<b>F</b>		>50	<b>Considerable delays</b>

Source: 2000 HCM, Exhibit 17-22, Level of Service Criteria for AWSC Intersections

# Level of Service

- Peak period vehicle LOS is often the only LOS metric used
- Favors roadway expansion, which can negatively affect:
  - The environment
  - Community character
  - Smart growth
  - All other modes of travel



*Source: National Complete Streets Coalition*

# Multimodal Level of Service

- Balanced approach that can account for a wider range of users:
  - Motor vehicles
  - Public transit
  - Bicycle
  - Walking
  - Other
- MMLOS indicators can respond to users' preferences and expand range of solutions

# Multimodal Level of Service

For example, travelers may accept higher auto delays for increased convenience, comfort and improvements for other modes



# MMLOS Guidelines

- Numerous guidelines recently developed or under development
- Methods vary from highly technical and data intensive to simpler with limited data needs
- Examples include ...

# Motor Vehicles

- Average travel speed
- Average delays
- Number of stops per mile

**Or...**

- Automobile Trips Generated (ATG)



# Public Transit

- Frequency of service
- Travel speed
- Availability
- Reliability
- Accessibility
- Passenger load
- Perceived safety and security
- Transit stop amenities
- And more ...



# Bicycle

- Network connectivity
- Type of facility
- Width of facility
- Traffic interaction
- Number and type of crossings
- Topography
- Sense of security
- Wayfinding
- And more...



# Walking

- Type of facility
- Width of facility
- Pedestrian density
- Perceived separation from traffic
- Street crossing widths
- Topography
- Sense of security
- Amenities
- And more ...



# Disciplines Involved in Developing Complete Streets Plans

- Planning
- Zoning
- Public Works
- Public Health
- Neighborhood Traffic Calming Programs
- Transit Agencies
- Environmental/Green Streets
- Safety Campaigns/Safe Routes to School

## Transportation Infrastructure Policy 5.3-I-3

*Coordinate the implementation of Complete Streets concepts, as appropriate, with ongoing transportation and congestion relief programs such as the*

*TDM Program*

*Street Smarts Traffic Safety Program*

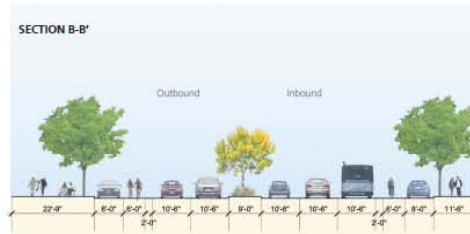
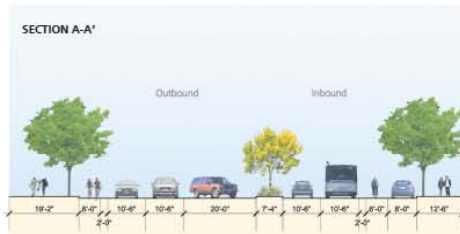
*Residential Traffic Calming Program*

*Safe Routes to School Program*

*TRAFFIX Program*

# Example: Mill Valley, CA

## HYBRID CURVE OPTION



MAIN STREET ANALYSIS

Analysis	Existing	Approved (Center Median Parking)	"Hybrid"
Parking Spaces*	200	198	171
Lane Width	12.5 - 13'	10.5'	10.5'
Bike Lane / Buffer	0-5'	6' / 2'	6' / 2'
Sidewalk Width (outbound)	6'	12'	14'
Sidewalk Width (inbound)	8'	11'	12'

\* based on assumption that shared parking agreement can be executed w/ property owner of back parking area to gain 23 regulation spaces.

MAIN STREET PARKING ANALYSIS

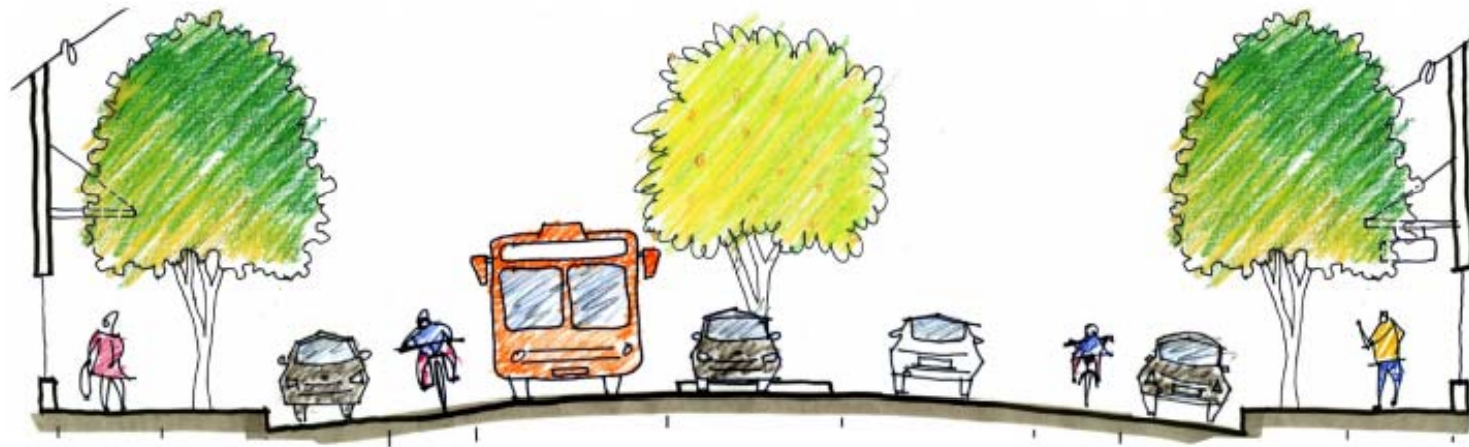
Main Street	Existing	Approved	"Hybrid"
Willow - Locust	29	25	22
Locust - La Goma	16	17	17
La Goma - Evergreen	28	30	17
Commuter Lot *	42	67	67
Evergreen - Reed/Valley Circle	85	59	48
Total	200	198	171

Miller Avenue Streetscape Plan

**Main Street - Hybrid Curve Option: Willow to Reed**



# Next Steps



*Source: Tacoma Mixed-Use Centers Complete Streets Design Guidelines*

# **C/CAG Schedule for OBAG FY 2013/14 – 2015/2016**

## **2012**

- Oct 15: Call for Projects issued
- Early Nov: Workshop for applicants
- Dec 14: Application due

## **2013**

- Jan 31: Adopt Complete Streets resolution
- Jan: TLC selection committee meeting
- Jan – April: Bike/Ped selection committee meeting
- Feb/March: TLC project list presented to TAC & CMEQ
- May: Project list presented to the Board
- Mid May: Project list to MTC
- Mid July: Project submissions due in FMS

# Questions?



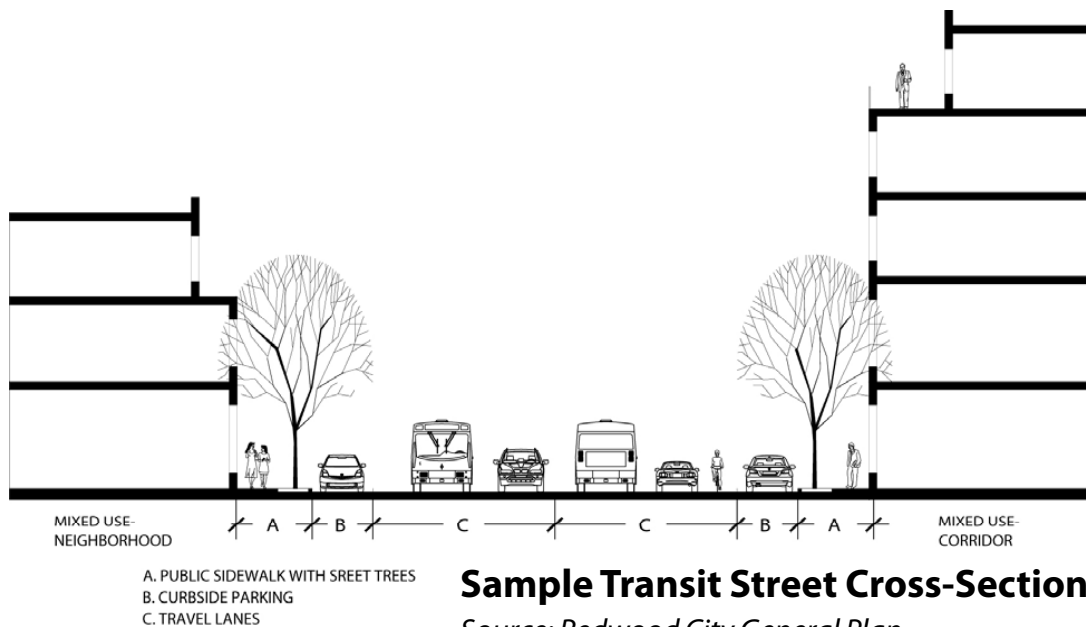
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# Next Steps

## Complete Streets Design Workshops

- Send us your complete streets examples



# Sources

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